Limnological Results From the 1982 British Columbia Lake Enrichment Program

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June 1983

Canadian Manuscript Report of Fisheries and Aquatic Sciences No. 1706

Canadian Manuscript Report of Fisheries and Aquatic Sciences

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Canadian Manuscript Report of
Fisheries and Aquatic Sciences No. 1706

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LIMNOLOGICAL RESULTS FROM THE 1982 BRITISH COLUMBIA LAKE ENRICHMENT PROGRAM

by

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Cat. No. Fs 97-4/1706 ISSN 0706-6473

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ABSTRACT

Costella, A.C., B. Nidle, and K.S. Shortreed. 1983. Limnological results from the 1982 British Columbia Lake Enrichment Program. Can. MS Rep. Fish. Aquat. Sci. 1706: v + 227 p.

Results of the 1982 Limnology subprogram of the British Columbia Lake Enrichment Program (LEP) are presented. Twenty-four stations in 17 lakes were sampled from near-isothermal conditions in spring until fall overturn. Major inlet streams and outlets of two lakes were also sampled. Data are presented for each lake, station and date and summarized in the summary tables. Time-weighted means for the growing season are also included.

Key words: lake fertilization, humic-stained, glacially-turbid, warm monomictic, oligotrophic, nutrients, bacteria, ultraphytoplankton, phytoplankton, zooplankton, streams

RÉSUMÉ

Costella, A. C., B. Nidle, and K. S. Shortreed. 1983. Limnological results from the 1982 British Columbia Lake Enrichment Program. Can. MS Rep. Fish. Aquat. Sci. 1706: v + 227 p.

Le présent rapport porte sur les résultats obtenus en 1982 dans le cadre du sous-programme limnologique du Programme d'enrichissement des lacs (PEL) de la Colombie-Britannique. On a échantillonné 24 stations réparties dans 17 lacs à partir du printemps, quand les conditions étaient presque isothermiques, jusqu'à l'inversion d'automne, ainsi que les principaux affluents et émissaires de deux lacs. Les données pour chaque lac, chaque station et chaque date sont présentées et résumées dans les tableaux. Les moyennes pondérées en fonction du temps pour la saison de croissance sont aussi incluses.

Mots-clés: fertilisation lacustre, coloré d'acide humique, glaciaire turbide, monomictique chaud, oligotrophe, bioéléments, bactéries, ultraphytoplancton, phytoplancton, zookplancton, cours d'eau

INTRODUCTION

The Lake Enrichment Program (LEP) of the Federal-Provincial Salmonid Enhancement Program (SEP) commenced in 1977 with the fertilization and study of six lakes and has since expanded with the fertilization of 13 lakes in 1982. In addition, Simpson, Sproat, Woss and Yakoun lakes were studied to obtain background data. Earlier work on many of these lakes and the rationale and objectives of these continuing studies have been previously reported by Stockner (1979), Stockner and Shortreed (1978; 1979), Stockner et al. (1980), Shortreed and Stockner (1981), MacIsaac et al. (1981) and Costella et al. (1982, 1983).

Data in this report are the results of the Limnology subprogram of the 1982 LEP. Field sampling and data collation were conducted under contract by J.E. Sager and Associates, Burnaby, B.C.

DESCRIPTION OF STUDY LAKES AND STREAMS

The 17 lakes sampled during 1982 represented a wide variety of morphometric and hydrologic types (Table 1, Fig. 1). All study lakes are oligotrophic and most are warm monomictic, however Kitlope Lake is dimictic and Henderson Lake is ectogenically meromictic (Hutchinson 1937). Of the 17 lakes studied, nine were humic stained, seven were clear and one was glacially-turbid. As a result, Secchi depths ranged from 2.8 m to 12.7 m. The lakes have relatively small littoral zones, low inorganic nutrient levels, low phytoplankton biomass (Shortreed and Stockner 1981), low bacterioplankton biomass (MacIsaac et al. 1981) and low zooplankton biomass (Rankin et al. 1979, Rankin and Ashton 1980).

The major inlet streams and the outlets of Kennedy and Long lakes were also sampled to assist development of nutrient budgets of these lakes. The streams ranged from clear to mildly humic-stained at Kennedy Lake, and clear to very humic-stained and at times glacially-turbid at Long Lake. The inlet streams at Long Lake were humic-stained in early spring and became clear as the season progressed except Smokehouse Creek which was very glacially-turbid by July. Maps showing locations of stations and streams are presented in Fig. 2-5 or in Costella et al. (1982, 1983).

METHODS

The lakes in this study were fertilized weekly throughout the growing season with an aqueous solution of ammonium nitrate and ammonium phosphate in an N:P atomic ratio of 15:1, except Kennedy Lake-Clayoquot Arm, which was

fertilized with an N:P atomic ratio of 26:1. The fertilizer was applied using a DC-6B water bomber in two or three passes over the pelagic zone. Fertilizer loads to the lakes are presented in Table 1.

The main basins of each lake were sampled from near-isothermal conditions in spring until the onset of fall overturn. All lakes were sampled monthly with the exception of Kitlope and Lowe lakes which were sampled once in August. At Kennedy Lake, one inlet stream and the outlet were sampled monthly and at Long Lake two inlet streams and the outlet were sampled monthly. A float-equipped de Havilland Beaver aircraft was used to sample all lakes and streams. The physical, chemical, and biological measurements collected at each station are summarized in Tables 2 and 3.

Temperature profiles to a maximum depth of 50 m were obtained at each station using a Montedoro-Whitney temperature probe (Model TC-5C). Buoyancy frequencies (/s) were calculated (Turner 1973) and used to determine epilimnion depth. Water temperature and an equation of state (Chen and Millero 1977) were used to calculate density. The Schmidt stability function was calculated to quantify the convective stability to a depth of 50 m (c.f. Johnson and Merritt 1979).

$$S = g \sum_{0}^{50} (\rho_z - \overline{\rho}) (z - z_{\overline{\rho}}) \Delta z$$

where : S = modified Schmidt stability function (kg/s^2)
g = gravitational constant (9.0 m/s^2)
ρ_z = density of water at depth z (g/cm^3)
$\overline{\rho}$ = mean density of the water column (g/cm^3)
z = depth (m)
$z_{\overline{\rho}}$ = depth where mean density occurs (m)
Δz = change in depth (m)

A Li-Cor light meter (Model 185A) equipped with a Li-Cor underwater quantum sensor (Model Li-192S) was used to measure photosynthetically active radiation (PAR: 400-700 nm) from the surface to the compensation depth (1% of surface intensity) and vertical light extinction coefficients were calculated. A standard 22-cm white Secchi disc was used to measure water transparency.

A 6-L Van Dorn bottle, rinsed with 95% ethanol, was used to collect all lake water samples. Samples were usually collected between 0900 and 1200 h. Samples for nutrient analyses were collected from 1, 3, 5 and 30 m at all lakes except Great Central and Sproat lakes where samples from 1, 3, 5, 23 and 40 m were collected. Unfiltered portions of the sample were placed into a clean, rinsed test tube and a 125-mL rinsed glass bottle, stored in the dark at 4°C and analyzed later for total phosphorus and total nitrogen respectively. Samples for the remaining nutrients and chlorophyll were stored from 2 to 4 h in 1-L or 2-L polyethylene bottles and kept cold and in the dark. At the field laboratory 47-mm Whatman GFF filters, which had been previously ashed and washed with 500 mL distilled water, were used to filter the nutrient samples. The filter was placed in a 47-mm Swinnex (Millipore Corp.) filtering unit. An additional 500 mL distilled water were passed through the filter followed by 50-mL aliquots from 30, 5, 3 and 1 m. One filter was generally used to filter all samples from each station unless high algal biomass inhibited filtering

efficiency. A glass bottle was rinsed then filled with 100 mL of filtered sample, covered with aluminum foil and capped tightly. This sample was analyzed later for nitrate and total dissolved nitrogen. Approximately 100 mL of sample was filtered into a rinsed, plastic bottle and analyzed later for soluble reactive silicon and total dissolved solids. All samples were stored cold and in the dark and chemical analyses were done according to the methods of Golterman (1969).

A 1-L sample was filtered through an ashed 47-mm diameter, Whatman GFF filter. Filters were folded in half, dried in a dessicator overnight, then stored frozen and later analyzed for particulate carbon and nitrogen using a Perkin-Elmer CHN analyzer (Model 240). Particulate carbon and nitrogen values will not be reported here. A 2-L sample was filtered through an ashed 47-mm Whatman GFF filter. Filters were placed into a clean scintillation vial and analyzed later for particulate phosphorus according to the method of Stainton et al. (1977). A 500-mL sample was filtered under subdued light through a 47-mm diameter, 0.8 µm Millipore filter and a few drops of a $MgCO_3$ suspension were added. Filters were folded in half, dried in a dessicator overnight, then stored frozen and analyzed later for total chlorophyll using a Turner fluorometer (Model III) according to the method of Strickland and Parsons (1972).

At selected stations where primary productivity was measured, glass jars were filled completely with water (generally from 2 m and 7.5 m), covered with parafilm and transported to the field laboratory. These samples were collected to measure pH and total alkalinity according to the standard potentiometric method of APHA (1976), using a 100-mL subsample, 0.01 N H_2SO_4 and a Cole-Parmer Digi-Sense pH meter (Model 5986-10). Dissolved inorganic carbon (DIC) was estimated indirectly from pH, temperature, total dissolved solids and bicarbonate alkalinity (APHA 1976). At additional stations (Bonilla and Curtis) where primary productivity was also measured, samples for DIC analysis were collected from eight depths in 50-cc plastic syringes and 1 mL of 1.0 N H_2SO_4 was added in the field; then the samples were transported to the field laboratory. Samples and standards for DIC were analyzed using a Carle Gas Chromatograph (Model 211 M) using the method of Stainton et al. (1977). Standards were prepared daily from a factory standard (1000 mg C/L) and deionized water. Duplicates of each standard were made (10, 5, 2, 0.5 mg C/L, and a blank) and 1.0 mL of 1.0 N H_2SO_4 was added. To each sample 30 mL of Helium gas (zero grade) were added then the sample was agitated for approximately 15 s. Samples were at ambient temperature prior to injection into the gas chromataograph.

A test tube rinsed with 95% ethanol was rinsed and filled with sample water from 1, 3, 5 and 30 m (1, 3, 5, 23 and 40 m at Great Central and Sproat lakes) for bacteria enumeration. In the field laboratory 5 mL were filtered onto a 25-mm diameter, 0.2 µm Nuclepore membrane filter counter-stained with Irgalan Black. Filters were removed when just dry and placed into a 9-cm divided petrie dish lined with Whatman filter paper, air dried at room temperature (approximately 20°C) and stored. Samples were counted later under epifluorescence using the acridine orange direct count (AODC) method as described by MacIsaac et al. (1981). Generally 300 bacteria or 10 fields were enumerated and counts converted to numbers/mL.

Samples for ultraphytoplankton (<3 µm equivalent spherical diameter)

biomass were collected from 1, 3, 5 and 30 m (1, 3, 5, 23 and 40 m at Great Central and Sproat lakes) in opaque, 125-mL polyethylene bottles and transported to the field laboratory where 15 mL of each sample were filtered under subdued light onto a pre-stained (Irgalan Black), 25-mm diameter, 0.2 µm Nuclepore membrane filter in the same manner as for bacteria biomass. Filters were then air-dried and stored in opaque, 9-cm petrie dishes at room temperature until counted. Just prior to ultraphytoplankton identification and enumeration, each filter was placed on top of a Whatman GFF filter in a Millipore filtering unit and rehydrated with 1-2 mL of cold, filtered, distilled water for approximately 2 min. The water was then drawn through and the moist filter placed on a microscope slide, followed by a drop of Type B immersion oil, a coverslip then another drop of oil. Counts were made at 1250X magnification using a Zeiss compound microscope (Model KLSM) equipped with epifluorescence. Approximately 20 to 30 random fields were counted and values were converted to numbers/m^3 and volume (mm^3/m^3). A minimum of 100 cells were counted per sample.

Phytoplankton samples from 1, 3, 5 and 30 m (1, 3, 5, 23 and 40 m at Great Central and Sproat lakes) were collected in opaque, 125-mL, polyethylene bottles and fixed with approximately 1 mL of Lugol's solution. Samples from 1, 3 and 5 m (plus 23 m from Great Central and Sproat lakes) were shaken and settled overnight in 27-mL settling chambers. One transect at 187.5X and one at 750X magnification were counted using a wild M40 inverted microscope equipped with phase contrast Utermöhl (1958). Counts were converted to numbers/m^3 and volume (mm^3/m^3). The carbon content of the ultraphytoplankton and phytoplankton was calculated from cell volume based on the equations of Strathmann (1967) and expressed as mg C/m^3. Results of the ultraphytoplankton and phytoplankton enumeration will not be reported here.

Total primary productivity and heterotrophic activity were measured at selected stations (Bonilla, Curtis, Kennedy-1 and -2, Long-2, Nimpkish-1 and Woss) at eight depths in the water column (Table 2). One 125-mL light bottle was filled with sample from each of the eight depths plus one dark bottle from 1, 3, 5 and 15 m for primary production and one light, dark and a time-zero blank bottle from 1, 3, 5 and 30 m for ^{3}H-glucose uptake. The bottles for primary productivity were inoculated with 250 µL of ^{14}C-bicarbonate radioisotope stock solution containing approximately 6.8 µCi/mL (252 kBq/mL). The remaining light and dark bottles (not the blanks) were inoculated with 250 µL sterile ^{3}H-glucose stock solution (specific activity of 30 µCi/mmol) containing approximately 6.2 µCi/mL or 229 kBq/mL). Activity of the radioisotopes were determined by inoculating three scintillation vials containing 0.5 mL ScintiGest (Fisher Scientific). Samples were incubated at their respective depths for approximately 2 h, generally between 0900 and 1200 h. After incubation, samples were retrieved, placed in light tight boxes and transported to the field laboratory where filtration started within 2 h after incubation stopped. Sterifil (Millipore Corp.) filtering units were used as follows: a wetted Sartorius glass fiber filter was placed on the filter holder base and support screen to reduce the amount of water remaining on the Nuclepore filter after filtration. A pool of water was put on top of the glass fiber filter and a 47-mm diameter, 0.2-µm Nuclepore membrane filter was placed on top. The funnel was then screwed down tightly and vacuum applied. A 25-mL aliquot of each sample for ^{14}C-uptake and 50-mL aliquots for ^{3}H-glucose uptake were filtered at a vacuum not exceeding 20 cm Hg. With the vacuum still applied, filters were removed and placed into scintillation vials containing 0.5 mL of ScintiGest. Size-fractionated primary production was also measured with 25-mL aliquots of the samples from 1, 3 and 5 m. Light and dark bottles were filtered in the same

manner using 47-mm diameter, 3-µm and 8-µm Nuclepore membrane filters. After all samples were filtered, the ^{3}H-glucose stock solution was filtered twice through a 47-mm diameter, 0.2-µm Nuclepore membrane filter, and 250 µL of the ^{3}H-glucose stock solution was added to each of the four blank bottles and a 50-mL aliquot was immediately filtered in the same manner as the other samples. All vials were stored cold in the dark. At the laboratory, 10 mL of ScintiVerse II (Fisher Scientific) was added to each scintillation vial. Samples were counted in a Packard Tri-Carb 460C Liquid Scintillation system. Quench series for both ^{14}C-bicarbonate and ^{3}H-glucose were composed of the same scintillation cocktail and filters as used for samples. Strickland's (1960) equation was used to calculate volumetric primary production as mg C/m^3/h and areal primary production as mg C/m^2/h. Hourly volumetric production was converted to daily areal production (mg C/m^2/d) using light data collected in the field with Li-Cor printing integrators (Model 550) equipped with Li-Cor quantum light sensors (Model 190S) which were installed at Bonilla, Curtis, Kennedy and Long lakes. Heterotrophic activity was measured by calculating the turnover time of the ^{3}H-glucose as described by MacIsaac et al. (1981). Results were expressed in hours on the raw data tables and as geometric means ($\log_{10}$) of the epilimnetic values on the summary tables.

Zooplankton were sampled at every station using a 100-µm mesh size SCOR-UNESCO net (mouth area = 0.25 m^2) which was hauled vertically at approximately 0.5 m/s from 25 m for most lakes (Awun, Bonilla, Curtis, Eden, Ian, Kitlope, Lowe, Nimpkish, Simpson, Woss, Yakoun) and 50 m for the remaining lakes (Great Central, Henderson, Hobiton, Kennedy, Long-1 and -2 and Sproat). Zooplankton samples were taken from 40 m at Long-3 and an additonal sample was taken at Simpson Lake from 70 m. All samples were preserved in a borax-buffered, 4% formalin-sucrose solution (Haney and Hall 1973). In the laboratory each sample was split in half using a Folsom plankton splitter. One portion was filtered onto a pre-weighed Whatman GFC filter, dried to a constant weight at 90°C for 24 h and weighed. Zooplankton biomass was expressed as mg dry weight/m^3 and mg dry weight/m^2. No corrections were made for possible algal contamination of the samples. The other portion of the sample was used for zooplankton identification and enumeration. Only zooplankton biomass data are presented in this report.

The major inlet streams and the outlets of Kennedy and Long lakes were sampled monthly for surface temperature, nutrients and bacterial biomass (Tables 2 and 3).

RESULTS

Results are presented as monthly means and time-weighted means for the growing season in the summary tables (Tables 4-39). The growing season limits are defined as starting when the surface temperature reaches 8°C in the spring and ends when it falls to 12°C in the fall. Raw data tables for each lake, station and date are presented in the Appendix Tables 1-171.

ACKNOWLEDGEMENTS

Many people gave their assistance to this program, most notably; K. Stephens, V. Malli and J. Valette who conducted the nutrient and chlorophyll analyses; M. Bolin, G. Borchert, L. Hooker, E. MacIsaac and V. Malli who assisted in the field surveys and data collation; and M. Bolin and K. Masuda who assisted in the ultraphytoplankton and phytoplankton identification and enumeration. The LEP is grateful to the pilots of Air B.C., Pacific Rim Airlines and Trans-Provincial Airlines for their expertise in flying in often inclement weather conditions. We also thank LEP staff for their critical review of the manuscript.

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Table 1. Geographic and hydrologic data from, and fertilizer additions to, the 1982 study lakes.

Lake	Latitude (N)	Longitude (W)	Elevation (m)	Lake area (km^2)	Mean depth (m)	Water residence time (y)	Fertilizer load (mg $P/m^2/wk$)
Awun[a]	53°36'	132°35'	51	4.9	47	0.9	3.89
Bonilla[a]	53°31'	130°15'	10	2.3	34	1.0	4.14
Curtis[a]	53°30'	129°50'	10	3.0	34	0.6	12.70
Eden[a]	53°51'	132°43'	70	5.9	43	0.9	3.23
Great Central[a]	49°22'	125°15'	82	51.0	212	7.3	2.80
Henderson[a]	49°05'	125°02'	15	15.0	109 (43)f	3.2 (1.3)f	5.71
Hobiton[a]	48°45'	124°49'	15	3.6	36	1.0	3.97
Ian[a]	53°45'	132°35'	116	20.0	50	1.1	2.69
Kennedy-Clayoquot[b]	49°08'	125°35'	12	17.0	51	1.7	5.04
Kennedy-Main[b]	49°04'	125°30'	12	47.0	27	0.9	0
Kitlope[a]	53°07'	127°13'	15	12.0	86	0.4	3.97
Long[a]	51°14'	127°10'	15	21.0	73	1.1	4.99
Lowe[a]	53°34'	129°33'	10	3.7	25	0.2	3.86
Nimpkish[a]	50°25'	126°57'	20	37.0	162	1.4	3.84
Simpson[c]	53°37'	129°33'	15	8.7	57	2.0	0
Sproat[d]	49°14'	125°06'	29	41.0	59	8.0	0
Woss[a]	50°08'	126°38'	150	13.0	81	3.0	0
Yakoun[e]	53°19'	132°17'	107	8.1	39[g]	-	0

[a]data from Shortreed and Stockner (1981).
[b]data from Stockner et al. (1980).
[c]data from Stockner and Shortreed (1979).
[d]data from Duval and Murray (1976).
[e]data from Stockner and Shortreed (1978).
[f]numbers in brackets are the result of calculating the lake volume using only the mixolimnion.
[g]T. Gjernes (pers. comm.)

Table 2. Physical. chemical and biological measurements collected at each lake and stream during the 1982 field season.

Lake and station	Measurements[a]	Depths sampled (m)	Number of sampling dates
Awun	A,B,D,E,F,G	1,3,5,30	6
Bonilla-2	A,B,C,D,E,F,G,K	0,1,2,3,5,7.5,10,15,30[b]	6
Curtis-2	A,B,C,D,E,F,G,K	0,1,2,3,5,7.5,10,15,30[b]	6
Eden	A,B,D,E,F,G	1,3,5,30	6
Great Central-1	A,B,C,D,E,F,I	1,3,5,23,40	8
Great Central-2	A,B,C,D,E,F,I	1,3,5,23,40	8
Henderson-2	A,B,C,D,E,F,I	1,3,5,30	8
Hobiton	A,B,C,D,E,F,I	1,3,5,30	8
Ian-1	A,B,D,E,F,G	1,3,5,30	6
Ian-2	A,B,D,E,F,G	1,3,5,30	6
Kennedy-1	A,B,C,D,E,F,I,K	0,1,2,3,5,7.5,10,15,30[b]	8
Kennedy-2	A,B,C,D,E,F,I,K	0,1,2,3,5,7.5,10,15,30[b]	8
Kitlope	A,B,C,D,E,F,G	1,3,5,30	1
Long-1	A,B,C,D,E,F,I	1,3,5,30	7
Long-2	A,B,C,D,E,F,I,K	0,1,2,3,5,7.5,10,15,30[b]	8
Long-3	A,B,C,D,E,F,H	1,3,5,30	2
Lowe	A,B,C,D,E,F,G	1,3,5,30	1
Nimpkish-1	A,B,C,D,E,F,G,K	0,1,2,3,5,7.5,10,15,30[b]	8
Nimpkish-2	A,B,C,D,E,F,G	1,3,5,30	8
Simpson	A,B,D,E,F,G,J	1,3,5,30	6
Sproat-1	A,B,C,D,E,F,I	1,3,5,23,40	8
Sproat-3	A,B,C,D,E,F,I	1,3,5,23,40	8
Woss	A,B,C,D,E,F,G	1,3,5,30	8
Yakoun	A,B,C,D,E,F,G	1,3,5,30	6
All streams	B,C,F and surf.temp.	subsurface	variable(7-8)

[a]legend for measurements is on Table 3.
[b]primary production was measured at eight depths (0,1,2,3,5,7.5,10 and 15 m), nutrients at 1,3,5 and 30 m, and dissolved inorganic carbon (DIC) generally at 2 and 7.5 m.

Table 3. Legend for physical, chemical and biological measurements collected during the 1982 field season.

Symbol	Measurements collected
A	- physical measurements (Secchi depth, 0-50 m temperature profile, light profile to compensation depth).
B	- basic water chemistry (total nitrogen, total dissolved nitrogen, nitrate, total phosphorus, soluble reactive silicon, total dissolved solids).
C	- basic water chemistry plus particulate carbon, nitrogen and phosphorus
D	- total chlorophyll
E	- ultraphytoplankton and phytoplankton identification and enumeration at 1, 3, 5 and 30 m.
F	- bacteria biomass at 1, 3, 5 and 30 m
G	- Zooplankton biomass (vertical haul 0-25 m)
H	- Zooplankton biomass (vertical hall 0-40 m)
I	- Zooplankton biomass (vertical haul 0-50 m)
J	- Zooplankton biomass (vertical haul 0-70 m)
K	- Primary production and dissolved inorganic carbon at 0, 1, 2, 3, 5, 7.5, 10 and 15 m - pH and total alkalinity generally at 2 and 7.5 m - Heterotrophic activity at 1, 3, 5 and 30 m

Table 4. Monthly sampling dates for the 1982 study lakes and streams.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Awun			20	15	14	18	15	15	
Bonilla-2			19	16	16	19	14	14	
Curtis-2			19	16	15	19	14	14	
Eden			20	15	14	18	15	15	
Great Central-1	23	20	29	25	30	27		1	5
Great Central-2	23	20	29	25	30	27		1	5
Henderson-2	23	20	29	25	30	27		1	5
Hobiton	23	20	29	25	30	27		1	5
Ian-1			20	15	14	18	15	15	
Ian-2			20	15	14	18	15	15	
Kennedy-1	24	21	28	24	29	26	30		4
Kennedy-2	24	21	28	24	29	26	30		4
Kennedy St.A	24	21	28	24	29	26	30		4
Kennedy St.B	24	21	28	24	29	26	30		4
Kitlope						17			
Long-1	26		26	22	27	24	29		2
Long-2	26	27	26	22	27	24	29		2
Long-3	26	27							
Long St.A	26		26	22	27	24	29		2
Long St.B	26		26	22	27	24	29		2
Long St.C	26	27	26	22	27	24	29		2
Lowe						17			
Nimpkish-1	27	28	27	22	27	24	29		2
Nimpkish-2	27	28	27	22	27	24	29		2
Simpson			19	16	15	17	14	14	
Sproat-1	23	20	29	25	30	27		1	5
Sproat-3	23	20	29	25	30	27		1	5
Woss	27	28	27	22	27	24	29		2
Yakoun			20	15	14	18	15	15	

Table 5. Dates for the beginning and end of the growing season used to compute the time-weighted mean values for the 1982 study lakes and streams.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Awun			21					23
Bonilla-2			21					26
Curtis-2			25					18
Eden			22					22
Great Central-1	23							27
Great Central-2		22						27
Henderson-2	28							27
Hobiton		25						15
Ian-1			21					22
Ian-2			21					25
Kennedy-1		6						22
Kennedy-2		7						25
Kennedy St.A		20						5
Kennedy St.B	24							25
Long-1			17					14
Long-2			3					16
Long St.A				30			28	
Long St.B				21			6	
Long St.C			4					15
Nimpkish-1			17					21
Nimpkish-2			10					23
Simpson			29					22
Sproat-1		22						29
Sproat-3	23							30
Woss		30						29
Yakoun			20					23

Table 6. Monthly and time-weighted mean values of surface temperature (°C) for the 1982 study lakes and streams.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$ [a]
Awun			7.7	15.6	16.5	18.2	18.3	13.3		16.0
Bonilla-2			7.3	18.2	15.3	18.0	17.9	13.7		16.1
Curtis-2			5.1	19.5	16.0	19.2	19.4	12.8		17.0
Eden			7.6	14.8	16.5	17.2	17.8	13.1		15.6
Great Central-1	8.8	8.3	17.9	22.1	19.4	20.4		16.9	10.5	16.5
Great Central-2	7.3	7.8	15.0	21.2	19.8	20.7		17.2	10.3	17.2
Henderson-2	7.0	8.8	14.0	18.7	19.1	19.3		16.9	10.4	15.4
Hobiton	8.7	7.2	16.5	20.6	20.0	20.5		17.2	10.2	17.8
Ian-1			7.8	14.4	15.3	16.9	17.5	13.1		15.1
Ian-2			7.8	13.1	14.6	17.3	18.1	13.5		14.9
Kennedy-1	7.6	8.5	16.4	21.4	20.4	21.5	16.7		9.1	17.0
Kennedy-2	7.1	9.0	14.6	20.8	19.7	20.8	16.9		10.0	16.5
Kennedy St.A	6.2	8.1	10.5	12.6	16.5	16.3	12.5		9.2	13.1
Kennedy St.B	8.3	11.8	15.2	21.4	19.8	22.1	16.8		9.4	16.8
Kitlope						12.7				
Long-1	5.3		8.5	15.2	20.5	19.6	14.5		8.9	15.9
Long-2	5.3	7.4	10.4	15.4	23.1	19.6	14.3		9.8	16.0
Long-3	6.4	7.9								
Long St.A	3.3		3.9	7.0	11.2	12.5	8.0		4.0	10.8
Long St.B	3.5		3.9	8.2	13.2	14.4	8.8		6.2	12.2
Long St.C	5.3	7.5	9.7	13.6	18.9	17.8	13.7		10.0	14.4
Lowe						18.9				
Nimpkish-1	5.8	7.0	8.5	13.9	17.2	17.3	15.1		10.3	14.5
Nimpkish-2	5.8	7.5	8.7	13.0	16.9	17.1	14.3		11.0	13.9
Simpson			4.0	14.8	13.7	17.8	16.8	13.0		15.0
Sproat-1	7.4	7.6	16.4	21.8	20.9	20.5		17.2	10.7	17.7
Sproat-3	8.8	8.6	16.4	21.6	21.6	20.3		17.2	11.0	16.6
Woss	6.2	7.8	10.2	16.0	19.2	19.0	15.2		11.6	15.1
Yakoun			8.1	16.3	15.9	18.1	18.7	13.4		16.1

[a] symbol indicates growing season average.

Table 7. Monthly and time-weighted mean values of depth of maximum stability (m) for the 1982 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Awun			U	5.2	7.1	9.0	11.5	17.6		9.7
Bamilla-2			U	4.8	8.1	8.3	13.8	16.5		10.1
Curtis-2			U	3.0	6.0	8.0	8.8	13.6		7.7
Eden			U	7.2	10.0	9.2	13.1	16.0		10.9
Great Central-1	U	U	8.7	3.7	6.1	8.8		11.0	17.7	8.3
Great Central-2	U	U	10.6	4.9	6.4	8.0		11.9	36.0	10.0
Henderson-2	U	U	15.9	12.2	14.0	16.0		16.6	28.5	15.8
Hobiton	U	U	6.1	6.8	7.0	7.8		9.0	19.3	7.7
Ian-1			U	6.0	11.0	15.2	14.2	17.6		13.0
Ian-2			U	7.8	8.4	12.8	13.2	16.4		11.6
Kennedy-1	U	U	5.9	6.1	6.0	7.2	8.8		23.9	7.8
Kennedy-2	U	U	10.0	5.1	7.8	9.5	9.5		32.5	9.7
Kitlope						4.7				
Long-1	U		U	9.4	11.8	7.2	8.2		30.6	9.8
Long-2	U	U	18.2	8.7	5.3	8.0	8.8		22.5	9.1
Long-3	U	U								
Lowe						10.6				
Nimpkish-1	U	U	U	26.9	18.2	18.8	27.0		U	21.5
Nimpkish-2	U	U	U	29.0	21.9	36.5	31.8		U	29.6
Simpson			U	9.2	5.6	8.4	16.0	16.2		10.5
Sproat-1	U	U	12.2	7.7	7.6	9.7		11.0	25.0	10.5
Sproat-3	U	U	11.6	7.0	9.6	10.9		12.0	18.1	10.7
Woss	U	U	21.7	6.4	11.3	20.4	24.3		33.2	17.9
Yakoun			12.8	6.1	7.8	10.2	13.3	15.1		10.3

Table 8. Monthly and time-weighted mean values of the modified Schmidt stability index (kg/s^2) for the 1982 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Awun			393	4401	4942	6776	5508	2406		4713
Bonilla-2			380	8527	4242	6155	6179	2052		5312
Curtis-2			8	10799	4559	9905	7258	2305		6944
Eden			179	3908	4527	5331	4764	2101		4053
Great Central-1	1358	719	5656	10622	5991	7022		3547	907	5028
Great Central-2	867	714	3084	8198	6072	6958		4368	611	4938
Henderson-2	457	710	2104	6639	6118	6010		3997	602	3872
Hobiton	1399	142	5142	8515	7334	8378		5138	1070	6222
Ian-1			162	2809	2134	4191	4659	1862		3010
Ian-2			284	2495	2504	5237	4835	2212		3334
Kennedy-1	111	502	5762	8973	9225	9504	4826		348	6136
Kennedy-2	386	668	3054	10932	6723	8184	4254		205	5302
Kitlope						1614				
Long-1	20		282	3340	6545	6082	2007		262	3800
Long-2	58	233	1092	3544	10599	5924	2299		579	4439
Long-3	251	516								
Lowe						6369				
Nimpkish-1	12	0	103	1092	2759	3436	1404		52	1769
Nimpkish-2	12	408	49	1085	2723	2186	1194		272	1408
Simpson			0	3597	3043	6492	3843	1914		3827
Sproat-1	641	437	4765	9592	8167	7374		4286	747	5802
Sproat-3	785	935	5297	8882	7413	6950		3723	786	4890
Woss	101	290	612	3330	5142	3883	2018		712	2670
Yakoun			560	5486	4795	6545	5839	2866		4932

Table 9. Monthly and time-weighted mean values of Secchi depth (m) for the 1982 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Awun			3.5	3.0	4.5	3.5	3.0	3.5		3.5
Bonilla-2			3.0	4.5	2.5	3.0	2.0	2.5		2.9
Curtis-2			4.5	3.5	4.0	3.0	3.5	5.0		3.7
Eden			4.0	3.5	2.5	4.0	2.5	3.0		3.2
Great Central-1	13.5	16.5	9.0	6.5	10.0	12.0		9.5	11.0	10.8
Great Central-2	13.5	13.0	8.0	6.5	12.0	10.0		8.0	11.0	9.4
Henderson-2	8.0	11.5	5.0	7.0		8.5		5.5		7.8
Hobiton	6.5	5.5	7.0	7.5	6.5	6.5		6.5	5.5	6.7
Ian-1			4.0	3.0	3.0	3.0	2.0	2.5		2.8
Ian-2			3.5	4.0	2.0	3.0	2.0	2.5		2.8
Kennedy-1	10.0	8.5	4.5	7.5	5.2	3.5	2.5		4.0	5.3
Kennedy-2	6.5	8.0	6.0	7.5	7.0	7.5	7.0		4.0	7.0
Kitlope						2.5				
Long-1	5.0		5.0	3.5	5.0	4.2	2.5		4.0	4.0
Long-2	5.5	6.0	5.0	4.0	4.5	5.0	4.0		4.0	4.6
Long-3	5.5	4.0								
Lowe						7.0				
Nimpkish-1	7.0	7.5	7.0	7.0	6.0	6.5	4.5		3.5	6.0
Nimpkish-2	7.0	8.0	8.5	7.5		6.0	5.5		4.0	6.6
Simpson			5.0	6.5	2.5	4.5	4.0	4.0		4.3
Sproat-1	11.0	11.0	11.5	15.0	12.0	15.0		12.0	7.5	12.5
Sproat-3	11.0	10.5	10.5	14.5	14.0	15.0		15.0	6.0	12.7
Woss	11.5	8.5	10.0	9.0	8.0	8.0	9.0		6.0	8.5
Yakoun				4.5	2.0	5.0	4.0	4.5		3.8

Table 10. Monthly and time-weighted mean values of compensation depth (m) for the 1982 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Awun			4.9	5.4			5.7	4.4		5.4
Bonilla-2			5.4	4.9	4.4	4.3	5.3	4.6		4.8
Curtis-2			6.8	7.5	7.6	6.1	6.3	5.7		6.8
Eden			3.9	4.8			4.4	4.4		4.5
Great Central-1	11.5	14.1	15.8	15.4	16.9	17.9		15.7	10.0	15.4
Great Central-2	13.5	14.5	14.7	15.7	16.0	17.7		17.7	10.3	15.9
Henderson-2	9.4	8.9	12.8	11.9	9.7	10.6		11.9	8.1	10.8
Hobiton	8.1	8.4	8.0	8.4	9.4	10.0		10.0	7.5	9.0
Ian-1			3.8	3.3		3.8	4.7	3.4		3.8
Ian-2			2.6	4.7			3.8	3.1		4.0
Kennedy-1	9.2	7.8	9.2	7.8	10.7	9.1	5.6		7.5	8.4
Kennedy-2	8.5	7.6	8.7	9.1	11.2	11.9	10.4		7.6	9.7
Kitlope						11.9				
Long-1	6.4		5.2	8.1	8.4	7.7	5.8		6.2	7.2
Long-2	6.2	6.8	6.5	6.6	9.0	8.6	5.8		6.2	7.3
Long-3	7.1	6.5								
Nimpkish-1	7.6	10.0	7.2	9.0	9.1	9.6	6.8		4.3	8.2
Nimpkish-2	4.8	7.5	7.1	8.8	9.0	10.5	9.3		6.9	8.9
Simpson			7.9	7.1	5.6		7.7	7.0		6.8
Sproat-1	15.4	15.3	16.4	22.6	20.8	25.4		24.9	10.3	20.6
Sproat-3	15.9	15.2	17.7	24.7	28.5	27.2		31.7	12.2	22.9
Woss	9.5	8.8	11.1	11.6	12.4	13.3	15.7		11.0	12.5
Yakoun			6.1	6.8			8.1	5.9		7.2

Table 11. Monthly and time-weighted mean values of mean extinction coefficient (k_e) for the 1982 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Awun			0.85	0.80			0.80	0.99		0.82
Bomilla-2			0.84	0.88	1.05	1.04	0.81	0.95		0.94
Curtis-2			0.66	0.58	0.58	0.74	0.68	0.73		0.66
Eden			1.06	0.87			0.95	0.96		0.93
Great Central-1	0.38	0.30	0.28	0.28	0.24	0.24		0.27	0.43	0.28
Great Central-2	0.32	0.28	0.29	0.26	0.26	0.24		0.24	0.42	0.27
Henderson-2	0.45	0.48	0.36	0.37	0.43	0.40		0.37	0.51	0.41
Hobiton	0.54	0.50	0.54	0.49	0.47	0.43		0.42	0.57	0.48
Ian-1			1.16	1.33		1.14	0.93	1.22		1.17
Ian-2			1.48	0.93			1.14	1.39		1.11
Kennedy-1	0.46	0.56	0.45	0.54	0.40	0.48	0.73		0.60	0.53
Kennedy-2	0.47	0.57	0.50	0.46	0.39	0.37	0.41		0.58	0.46
Kitlope						0.38				
Long-1	0.63		0.82	0.53	0.53	0.58	0.76		0.71	0.63
Long-2	0.66	0.64	0.63	0.65	0.49	0.52	0.76		0.71	0.61
Long-3	0.58	0.67								
Nimpkish-1	0.55	0.44	0.57	0.48	0.46	0.46	0.64		0.99	0.54
Nimpkish-2	1.01	0.57	0.62	0.48	0.48	0.41	0.47		0.63	0.50
Simpson			0.53	0.63	0.80		0.58	0.63		0.66
Sproat-1	0.28	0.28	0.27	0.19	0.21	0.18		0.17	0.41	0.22
Sproat-3	0.27	0.28	0.25	0.16	0.15	0.16		0.14	0.38	0.21
Woss	0.42	0.52	0.38	0.36	0.35	0.33	0.28		0.39	0.35
Yakoun			0.70	0.63			0.55	0.74		0.61

Table 12. Monthly and time-weighted mean values of mean (2 and 7.5 m) pH for the 1982 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Bonilla-2				6.0		5.6		5.9		5.8
Curtis-2				6.3		6.1		6.0		6.1
Kennedy-1	7.3	7.2	7.3	7.4	7.5	8.9	8.4		6.9	7.8
Kennedy-2	7.1	7.1	7.2	7.2	7.3	7.2	7.2		6.7	7.2
Long-2	6.6	6.6								
Nimpkish-1	7.0	6.9								
Woss	6.9	6.8								

Table 13. Monthly and time-weighted mean values of mean (2 and 7.5 m) total alkalinity (mg/L $CaCO_3$) for the 1982 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Bonilla-2				1.22		0.96		1.28		1.10
Curtis-2				1.17		0.94		1.21		1.06
Kennedy-1	11.10	12.67	14.17	15.17	16.70	15.92	19.82		13.32	15.60
Kennedy-2	6.55	8.98	9.61	10.23	11.27	11.31	13.68		9.06	10.73
Kitlope						2.30				
Long-2	2.37	3.62								
Lowe						1.38				
Nimpkish-1	8.92	11.61								
Woss	7.42	8.98								

Table 14. Monthly and time-weighted mean values of mean epilimnetic dissolved inorganic carbon (mg C/L) for the 1982 study lakes using the gas chromatograph (Stainton et al. 1977).

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Bonilla-2				0.83		1.19	1.27			1.07
Curtis-2			0.64	0.64		0.91	1.24			0.82
Kennedy-1	4.75									
Kennedy-2	3.21									
Long-2	1.80	0.53								
Nimpkish-1	3.13	2.81								
Woss	2.46	2.19								

Table 15. Monthly and time-weighted mean values of mean epilimnetic dissolved inorganic carbon (mg C/L) for the 1982 study lakes using the potentiometric method (APHA 1976).

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Bonilla-2				0.76		1.99		1.22		1.48
Curtis-2				0.47		0.68		1.04		0.71
Kennedy-1	3.12	3.60	3.65	3.91	4.36	4.41	4.93		4.30	4.13
Kennedy-2	1.97	2.71	2.73	2.82	2.97	3.09	3.76		3.34	3.02
Kitlope						6.01				
Long-2	1.06	1.59								
Lowe						2.85				
Nimpkish-1	2.73	3.84								
Woss	2.42	3.16								

Table 16. Monthly and time-weighted mean values of mean epilimnetic total nitrogen (µg N/L) for the 1982 study lakes and streams.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Awun					149	193	374	184		240
Bonilla-2					148	230	296	175		226
Curtis-2					140	200	318	136		214
Eden					158	193	484	235		284
Great Central-1					105	110		147	122	125
Great Central-2					109	125		113	112	116
Henderson-2					131	140		150	120	140
Hobiton					159	157		168	103	159
Ian-1					179	222	600	179		325
Ian-2					192	335	359	225		298
Kennedy-1					157	234	289		142	235
Kennedy-2					114	137	187		118	150
Kennedy St.A					90	141	172		99	117
Kennedy St.B					102	136	157		122	137
Kitlope						160				
Long-1					130	163	168		153	159
Long-2					144	177	158		153	163
Long St.A					85	93	244		172	91
Long St.B					119	150	175		200	141
Long St.C					180	178	653		163	358
Lowe						129				
Nimpkish-1					124	170	185		146	166
Nimpkish-2					128	159	163		152	155
Simpson					148	129	228	136		165
Sproat-1					90	98		110	122	104
Sproat-3					86	108		131	128	116
Woss					89	155	133		103	130
Yakoun					116	126	307	127		181

Table 17. Monthly and time-weighted mean values of mean epilimnetic total dissolved nitrogen (µg N/L) for the 1982 study lakes and streams.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Awun			286	193	158	156	244	159		192
Bonilla-2			260	143	142	164	208	179		173
Curtis-2			234	127	118	140	203	143		151
Eden			365	202	147	171	230	217		202
Great Central-1	174	343	268	105	106	131		115	93	176
Great Central-2	128	260	157	102	97	106		125	114	131
Henderson-2	234	533	178	147	104	122		179	161	211
Hobiton	308	578	250	151	126	169		136	129	203
Ian-1			276	262	158	161	232	171		204
Ian-2			286	214	199	193	312	248		235
Kennedy-1	222	573	187	169	136	144	279		129	241
Kennedy-2	205	479	193	122	165	116	187		118	203
Kennedy St.A	208	348	185	83	106	136	212		106	165
Kennedy St.B	250	372	183	92	139	129	265		121	199
Kitlope						134				
Long-1	212		381	171	105	93	226		120	181
Long-2	218	290	231	245	117	114	191		132	183
Long-3	240	251								
Long St.A	297		200	194	94	106	361		146	117
Long St.B	243		239	256	113	114	286		151	153
Long St.C	453	299	208	343	169	110	142		121	198
Lowe						145				
Nimpkish-1	260	288	248	177	154	156	185		123	178
Nimpkish-2	264	402	217	192	171	128	192		200	186
Simpson			237	138	97	110	149	130		128
Sproat-1	146	472	176	104	109	106		116	120	155
Sproat-3	249	341	136	94	107	113		134	97	158
Woss	223	289	196	134	126	118	151		134	153
Yakoun			218	185	107	142	188	167		161

Table 18. Monthly and time-weighted mean values of mean epilimnetic nitrate (µg N/L) for the 1982 study lakes and streams.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Awun			39.8	23.5	10.3	1.7	13.0	25.3		15.4
Bonilla-2			12.2	<1.0	<1.0	<1.0	1.3	2.0		2.1
Curtis-2			26.2	2.0	1.0	<1.0	20.0	12.3		7.7
Eden			53.5	40.7	13.0	26.0	34.3	46.0		31.7
Great Central-1	39.8	35.2	9.7	1.0	<1.0	<1.0		<1.0	3.0	10.1
Great Central-2	42.0	36.6	9.7	<1.0	<1.0	<1.0		<1.0	5.2	6.1
Henderson-2	32.8	29.8	9.7	6.3	<1.0	<1.0		<1.0	16.7	9.7
Hobiton	33.0	26.2	1.3	47.3	<1.0	<1.0		<1.0	11.7	11.7
Ian-1			28.2	40.5	26.0	28.0	30.0	32.0		30.7
Ian-2			41.0	33.7	28.7	28.3	30.0	36.0		31.6
Kennedy-1	72.5	49.8	5.0	4.7	1.0	1.0	1.0		37.0	12.4
Kennedy-2	31.5	30.0	14.7	11.0	1.0	1.0	<1.0		24.2	10.6
Kennedy St.A	41.0	37.0	26.0	11.0	30.0	50.0	55.0		48.0	33.6
Kennedy St.B	40.0	33.0	10.0	8.0	<1.0	1.0	2.0		26.0	12.0
Kitlope						4.0				
Long-1	77.8		46.0	21.0	<1.3	1.3	<1.0		25.8	12.7
Long-2	60.8	46.5	38.0	24.0	5.0	1.0	1.0		19.7	15.2
Long-3	60.0	52.0								
Long St.A	62.0		43.0	25.0	6.0	8.0	15.0		52.0	10.0
Long St.B	82.0		44.0	16.0	17.0	58.0	109.0		49.0	32.1
Long St.C	60.0	52.0	37.0	38.0	<1.0	3.0	<1.0		8.0	17.2
Lowe						1.7				
Nimpkish-1	58.0	49.2	52.8	30.0	27.0	24.7	25.8		47.5	31.6
Nimpkish-2	60.0	50.5	46.8	38.3	26.7	27.2	24.0		48.5	33.3
Simpson			25.5	12.7	6.7	<1.0	2.0	5.0		6.2
Sproat-1	37.8	26.2	5.0	1.3	<1.0	<1.0		1.0	6.8	4.5
Sproat-3	31.8	16.4	1.0	1.7	<1.0	<1.0		1.0	3.0	5.5
Woss	37.8	24.0	25.0	18.0	4.7	3.0	3.7		16.8	11.8
Yakoun			35.7	17.0	<1.0	<1.0	3.3	3.0		7.6

Table 19. Monthly and time-weighted mean values of mean epilimnetic total phosphorus (µg P/L) for the 1982 study lakes and streams.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Awun			2.5	3.0	4.3	2.0	4.0	3.3		3.3
Bonilla-2			2.2	3.5	5.0	4.0	5.0	4.7		4.2
Curtis-2			1.8	5.0	10.0	5.0	6.3	4.7		6.2
Eden			2.0	2.7	4.7	3.0	5.3	4.3		3.8
Great Central-1	1.4	1.2	1.0	2.5	2.0	2.3		1.7	2.0	1.8
Great Central-2	1.4	1.0	1.3	3.0	1.7	3.0		3.7	2.0	2.4
Henderson-2	2.8	1.5	3.3	4.3	4.0	4.7		3.3	2.0	3.4
Hobiton	4.0	2.8	3.0	3.7	4.0	4.7		4.7	2.5	3.9
Ian-1			2.0	3.7	7.3	2.0	4.3	3.0		4.0
Ian-2			2.0	3.0	6.5	2.3	4.0	3.7		3.8
Kennedy-1	2.8	2.0	3.0	4.3	6.7	4.7	5.0		2.2	4.2
Kennedy-2	2.0	1.8	1.0	2.0	2.7	1.3	1.3		2.0	1.7
Kennedy St.A	2.0	1.0	<1.0	2.0	1.0	18.0	<1.0		1.0	4.3
Kennedy St.B	2.0	1.0	1.0	1.0	2.0	3.0	2.0		3.0	1.7
Kitlope						3.0				
Long-1	4.0		2.5	3.3	5.3	6.0	6.3		4.0	4.8
Long-2	3.0	2.2	3.0	3.3	4.7	6.0	5.7		2.7	4.4
Long-3		2.8								
Long St.A				5.0	6.0	6.0			5.0	5.8
Long St.B	1.0		1.0	2.0	6.0	2.0			8.0	3.7
Long St.C		2.0	2.0	3.0	3.0	4.0	3.0		3.0	3.0
Lowe						2.0				
Nimpkish-1	1.8	1.0	1.5	2.7	6.3	2.3	1.8		3.2	3.0
Nimpkish-2	1.5	1.0	1.0	2.0	2.0	1.5	2.0		2.2	1.7
Simpson			1.0	3.0	1.7	1.0	<1.0	1.5		1.6
Sproat-1	1.2	1.2	<1.0	<1.0	2.0	1.3		1.3	1.5	1.3
Sproat-3	1.4	2.2	<1.0	1.7	<1.0	<1.0		<1.0	2.0	1.4
Woss	1.2	1.2	1.0	1.0	1.0	1.0	<1.0		1.0	1.0
Yakoun			1.0	3.0	3.0	1.0	1.3	1.0		1.9

Table 20. Monthly and time-weighted mean values of mean epilimnetic particulate phosphorus (µg P/L) for the 1982 study lakes and streams.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Bonilla-2			2.0	5.0		4.0	1.3	3.0		3.5
Curtis-2			2.0	7.5		7.7	2.0	2.7		5.6
Great Central-1	0.6	<0.9	1.3	1.0	2.3	1.0		1.0	1.0	1.2
Great Central-2	0.5	<1.0	1.5	<1.0	<1.7	1.7		1.7	1.2	1.5
Henderson-2	1.0	1.0	2.2	2.0	4.7	2.0		2.0	1.0	2.2
Hobiton	1.0	1.0	2.8	1.7	5.7	3.0		2.3	2.0	2.9
Kennedy-1	1.0	1.0	3.0	2.7	3.7	5.0	<1.0		2.0	2.7
Kennedy-2	0.9	1.0	1.0	<1.0	<2.0	<1.0	<1.0		1.0	1.2
Kennedy St.A	0.5	<1.0	0.5	<1.0	<1.0	<1.0	<1.0		1.0	0.9
Kennedy St.B	1.0	1.0	1.0	<1.0	<2.0	<2.0	1.0		2.0	1.3
Kitlope						3.0				
Long-1	1.5		2.6	2.0	5.7	4.3	2.0		3.0	3.4
Long-2	1.0	1.5	3.0	1.7	7.0	4.3	1.0		2.0	3.3
Long-3	1.0	1.2								
Long St.A	3.0		2.5	2.0	6.0	4.0	4.0		1.0	4.0
Long St.B	1.0		1.0	<1.0	<1.0	<0.5	3.0		3.0	0.9
Long St.C	1.0	<0.5	2.0	1.0	2.0	<2.0	<1.0		2.0	1.6
Lowe						2.0				
Nimpkish-1	0.7	<0.5	1.0	1.3	4.0	2.0	1.0		2.0	1.9
Nimpkish-2	0.5	0.5	1.0	<1.0	2.3	1.0	<1.0		2.0	1.3
Sproat-1	0.8	<0.5	0.8	<1.0	<1.0	<0.5		<1.0	1.2	0.8
Sproat-3	0.9	0.5	1.0	<1.0	<2.0	<0.5		<1.0	1.3	1.0
Woss	0.5	0.5	1.0	<1.0	<1.3	<0.8	<1.0		1.0	1.0
Yakoun			<1.0	<2.0		<1.0	2.3	1.0		1.6

Table 21. Monthly and time-weighted mean values of mean epilimnetic soluble reactive silicon (µg Si/L) for the 1982 study lakes and streams.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Awun			1840	1807	1750	1497	1637	1613		1678
Bonilla-2			447	373	400	207	343	490		358
Curtis-2			435	173	133	67	297	440		210
Eden			2075	2020	1933	1747	2043	2060		1956
Great Central-1	753	994	853	520	447	513		510	453	642
Great Central-2	769	984	903	505	477	310		480	470	577
Henderson-2	170	536	507	377	223	177		203	317	331
Hobiton	995	1100	1000	947	927	687		880	910	908
Ian-1			1775	1607	1723	1403	1697	1757		1636
Ian-2			1620	1723	1633	1420	1600	1643		1598
Kennedy-1	507	796	503	310	220	203	517		520	428
Kennedy-2	356	708	547	620	590	417	640		482	577
Kennedy St.A	960	920	800	670	920	920	1240		530	892
Kennedy St.B	396	770	630	550	500	340	610		520	556
Kitlope						340				
Long-1	654		938	610	470	360	683		650	591
Long-2	654	675	897	703	510	363	640		573	617
Long-3	659	683								
Long St.A	1690		810	410	320	260	1000		1490	321
Long St.B	1390		750	420	510	810	1880		890	619
Long St.C	1125	690	870	780	540	390	650		590	640
Lowe						243				
Nimpkish-1	1829	1825	1768	1557	1547	1353	1650		1640	1569
Nimpkish-2	1842	1808	1612	1650	1573	1330	1648		1650	1573
Simpson			492	403	428	263	407	537		397
Sproat-1	1085	1214	1100	970	920	723		1040	890	974
Sproat-3	1248	1260	1097	1090	987	830		1067	1123	1074
Woss	1167	1125	1237	1150	1107	893	1177		1025	1105
Yakoun			963	892	907	690	833	923		850

Table 22. Monthly and time-weighted mean values of epilimnetic total dissolved solids (mg/L) for the 1982 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Awun			34.2		27.9	30.0	23.3	35.1		29.3
Bonilla-2			29.7	18.0	21.2	21.3	12.5	25.7		20.1
Curtis-2			12.2	10.6	13.3	12.6	15.9	16.4		13.4
Eden			28.9	32.7	35.2	47.3	35.3			37.3
Great Central-1	23.3	23.7	25.9	27.3	24.7	21.9		18.1	18.7	23.3
Great Central-2		21.8	24.7	24.7	24.0	21.9		15.8	26.7	22.4
Henderson-2	98.1	87.9	81.6	75.0	78.0	70.6		64.6	52.7	76.1
Hobiton	23.5	23.7	28.5	16.6	27.3	19.3		23.3	14.1	23.0
Ian-1			28.2	38.0	33.9	34.0	37.5			34.7
Ian-2			40.6	30.2	36.6	24.6	36.8			32.4
Kennedy-1	23.2	24.9	25.7	32.0	26.7	28.0	30.1		28.0	27.8
Kennedy-2	23.2	19.4	31.7	29.3	26.0	24.7	25.8		25.5	26.1
Kitlope						6.0				
Long-1	35.2		16.4	11.3	10.0	7.3	6.5		13.3	10.1
Long-2	11.0	9.1	17.2	10.0	12.0	10.7			12.3	12.0
Long-3		15.3								
Lowe						6.0				
Nimpkish-1	24.0	22.5	21.1	18.7	30.0	24.0	26.3		23.3	24.2
Nimpkish-2		30.8	32.0	25.3	28.7	23.3	19.8		27.2	25.7
Simpson			14.7		14.0	13.3	21.0	15.7		15.6
Sproat-1	34.7	37.7	34.7	41.3	36.6	35.3		38.7	30.4	36.9
Sproat-3	41.5	32.3	36.7	39.3	38.0	34.0		35.9	34.1	36.2
Woss	18.5	15.7	24.8	16.7	29.3	17.3	17.0		17.2	20.2
Yakoun			27.6		28.6	24.6		29.3		27.3

Table 23. Monthly and time-weighted mean values of mean epilimnetic bacterial numbers ($x10^6$/mL) for the 1982 study lakes and streams.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Awun			0.95	1.06	0.95	0.62	1.44	1.67		1.07
Bonilla-2			1.31	1.18	1.89	1.43	2.10	1.99		1.66
Curtis-2			1.09	1.66	1.95	1.45	2.07	1.80		1.74
Eden			1.19	0.95	0.77	1.17	1.52	2.02		1.20
Great Central-1	1.00	0.84	0.71	0.81	1.36	0.99		1.11	1.10	0.98
Great Central-2	1.54	0.66	0.64	0.70	1.14	1.16		1.56	1.25	1.02
Henderson-2	0.92	0.80	1.22	1.13	1.66	1.70		1.06	1.18	1.24
Hobiton	0.78	1.14	1.12	0.78	2.42	1.45		2.16	1.31	1.53
Ian-1			1.10	1.43	1.46	1.45	1.65	1.76		1.49
Ian-2			1.17	1.28	1.32	1.46	1.49	1.56		1.39
Kennedy-1	1.07	0.97	0.90	1.36	1.61	1.40	2.06		1.40	1.38
Kennedy-2	1.08	1.21	0.52	0.58	0.64	0.46	0.87		0.97	0.73
Kennedy St.A	0.40	0.39	0.27	0.47	0.34	0.46	0.53		0.56	0.40
Kennedy St.B	1.30	1.24	0.64	0.82	0.93	0.99	1.09		1.01	0.98
Kitlope						0.84				
Long-1	0.90		0.96	1.10	1.23	1.05	1.28		1.42	1.14
Long-2	0.90	0.82	0.80	1.07	0.86	1.20	1.05		1.44	1.00
Long-3	0.82	0.74								
Long St.A	0.48		0.37	0.30	0.30	0.20	0.29		0.21	0.27
Long St.B	0.31		0.20	0.31	0.29	0.17	0.14		0.22	0.25
Long St.C	0.84	0.31	0.80	0.77	0.79	1.02	1.05		1.16	0.86
Lowe						0.87				
Nimpkish-1	0.66	0.79	0.73	0.83	0.73	1.17	1.24		1.58	0.99
Nimpkish-2	0.80	0.78	0.68	0.79	0.89	0.85	1.16		1.50	0.92
Simpson			0.85	0.59	1.00	0.75	1.29	1.60		0.99
Sproat-1	0.84	0.54	0.50	0.63	0.47	0.26		0.52	0.82	0.50
Sproat-3	0.83	0.68	0.63	0.48	0.38	0.28		0.53	1.02	0.55
Woss	0.84	0.72	0.67	0.53	0.60	0.52	0.75		0.80	0.64
Yakoun			0.71	0.61	0.62	0.56	0.71	0.92		0.66

Table 24. Monthly and time-weighted mean values of mean epilimnetic light bottle glucose turnover time (h) for the 1982 study lakes (geometric mean transformation).

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Bonilla-2				47		69	54			58
Curtis-2			41	33		47	27			38
Kennedy-1	502	425	36	21	30	85	16		48	50
Kennedy-2	122	932	636	283	263	262	93		81	290
Long-2	197									
Nimpkish-1	329	431								
Woss	628	225								

Table 25. Monthly and time-weighted mean values of mean epilimnetic dark bottle glucose turnover time (h) for the 1982 study lakes (geometric mean transformation).

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Bonilla-2				61		136	44			87
Curtis-2			55	31		88	31			49
Kennedy-1	418	289	47	26	34	100	24		37	56
Kennedy-2	234	358	438	322	226	398	92		97	257
Long-2	485									
Nimpkish-1	543	790								
Woss	>10000	384								

Table 26. Monthly and time-weighted mean values of mean epilimnetic light bottle specific activity ($x10^{-8}$) for the 1982 study lakes (geometric mean transformation).

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Bonilla-2				18.0		10.2	8.9			12.3
Curtis-2			23.0	18.8		15.8	18.1			17.7
Kennedy-1	1.9	2.5	30.8	38.8	21.2	8.4	31.4		15.1	15.6
Kennedy-2	7.6	0.9	3.1	6.2	6.0	8.4	12.4		13.3	5.1
Long-2	5.8									
Nimpkish-1	4.2	3.0								
Woss	1.6	6.3								

Table 27. Monthly and time-weighted mean values of mean epilimnetic dark bottle specific activity ($x10^{-8}$) for the 1982 study lakes (geometric mean transformation).

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Bonilla-2				13.8		5.2	10.9			8.2
Curtis-2			16.9	20.2		8.6	15.5			13.7
Kennedy-1	2.3	4.3	23.5	31.0	18.7	7.1	20.6		19.5	14.1
Kennedy-2	4.0	2.3	4.4	5.5	6.9	5.5	12.5		11.1	5.7
Long-2	2.3									
Nimpkish-1	2.6	1.6								
Woss	0.1	3.7								

Table 28. Monthly and time-weighted mean values of mean epilimnetic total chlorophyll (µg/L) for the 1982 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Awun			0.53	1.34	1.52	1.99	2.09	2.64		1.74
Bonilla-2			0.59	3.32	5.01	5.24	6.28	3.56		4.46
Curtis-2			0.86	4.50	5.81	5.69	6.69	2.91		5.10
Eden			0.93	2.41	2.53	1.44	1.65	1.37		1.86
Great Central-1	0.41	0.73	1.41	0.67	0.51	1.07		0.89	1.63	0.89
Great Central-2	0.27	0.75	1.36	2.03	0.45	2.01		1.77	2.07	1.48
Henderson-2	0.30	0.47	2.83	2.60	4.69	2.36		5.34	1.61	2.87
Hobiton	0.33	1.25	1.32	1.13	1.74	2.16		2.65	1.59	1.73
Ian-1			0.54	1.37	1.32	1.51	1.27	0.47		1.21
Ian-2			0.39	1.53	0.97	1.47	1.49	0.78		1.22
Kennedy-1	0.46	1.14	4.83	2.07	4.12	7.30	15.62		2.01	5.68
Kennedy-2	0.40	1.03	1.12	1.02	1.19	1.11	1.55		0.59	1.13
Kitlope						1.09				
Long-1	0.34		1.79	2.67	1.48	2.12	5.98		2.88	2.82
Long-2	0.40	2.95	2.22	4.40	1.83	2.41	4.51		3.28	3.08
Long-3	0.30	2.82								
Lowe						0.97				
Nimpkish-1	0.12	0.20	0.49	1.37	1.39	3.13	1.66		0.97	1.64
Nimpkish-2	0.14	0.16	0.43	1.37	1.36	1.65	1.38		1.33	1.24
Simpson			0.17	1.33	0.80	1.09	1.55	1.48		1.18
Sproat-1	0.34	1.08	0.60	0.29	0.32	0.39		0.47	0.99	0.52
Sproat-3	0.86	2.33	0.52	0.25	0.33	0.39		0.52	1.81	0.81
Woss	0.62	1.26	0.59	1.18	0.97	1.68	1.26		1.20	1.16
Yakoun			1.41	2.27	1.37	0.77	1.89	3.04		1.69

Table 29. Monthly and time-weighted mean values of mean euphotic zone total primary production (>0.2 µm) (mg C/m^3/h) for the 1982 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Bonilla-2				3.84		5.77	4.20			4.86
Curtis-2			0.49	5.61		5.33	4.11			4.94
Kennedy-1	1.53	1.01	2.83	3.81	2.77	5.97	18.08		0.63	5.56
Kennedy-2	0.53	0.72	0.49	0.79	0.31	0.27	1.10		0.32	0.60
Long-2	0.84	0.96								
Nimpkish-1	0.11	0.08								
Woss	0.26	0.46								

Table 30. Monthly and time-weighted mean values of mean (1, 3 and 5 m) size-fractionated primary production (0.2-3.0 µm) (mg C/m^3/h) for the 1982 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Bonilla-2				0.91		1.68	1.58			1.39
Curtis-2			0.13	1.12		3.14	2.17			1.98
Kennedy-1	0.59	0.46	0.26	1.00	1.39	2.00	5.95		0.30	1.79
Kennedy-2	0.70	0.35	0.37	0.45	0.07	0.07	0.69		0.19	0.34
Long-2	0.02	0.62								
Nimpkish-1	0.03	0.02								
Woss	0.22	0.14								

Table 31. Monthly and time-weighted mean values of mean (1, 3 and 5 m) size-fractionated primary production (3.0-8.0 µm) (mg C/m^3/h) for the 1982 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Bonilla-2				0.98		1.15	1.08			1.08
Curtis-2			0.14	1.22		3.19	0.63			1.87
Kennedy-1	0.00	0.16	1.25	0.99	0.97	0.39	1.28		0.30	0.81
Kennedy-2	0.16	0.02	0.15	0.05	0.12	0.08	0.32		0.08	0.12
Long-2	0.37	0.07								
Nimpkish-1	0.03	0.09								
Woss	0.03	0.09								

Table 32. Monthly and time-weighted mean values of mean (1, 3 and 5 m) size-fractionated primary production (0.2-8.0 µm) (mg C/m^3/h) for the 1982 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Bonilla-2				1.89		2.77	2.65			2.44
Curtis-2			0.23	2.34		6.33	2.80			3.84
Kennedy-1	0.55	0.62	1.51	1.99	2.35	2.38	7.16		0.53	2.58
Kennedy-2	0.16	0.36	0.52	0.49	0.19	0.14	1.01		0.27	0.44
Long-2	0.28	0.69								
Nimpkish-1	0.06	0.06								
Woss	0.20	0.23								

Table 33. Monthly and time-weighted mean values of mean (1, 3 and 5 m) size-fractionated primary production (>3.0 µm) (mg C/m^3/h) for the 1982 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Bonilla-2				1.74		3.51	2.26			2.70
Curtis-2			0.31	5.53		4.84	2.50			4.51
Kennedy-1	0.13	0.39	3.28	2.99	3.59	2.42	10.46		0.62	3.72
Kennedy-2	0.16	0.26	0.21	0.41	0.45	0.17	0.78		0.19	0.37
Long-2	0.57	0.23								
Nimpkish-1	0.04	0.15								
Woss	0.13	0.17								

Table 34. Monthly and time-weighted mean values of mean (1, 3 and 5 m) size-fractionated primary production (>8.0 µm) (mg C/m^3/h) for the 1982 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Bonilla-2				0.76		2.36	1.20			1.62
Curtis-2			0.18	4.31		1.65	1.88			2.65
Kennedy-1	0.18	0.23	2.03	1.99	2.63	2.03	9.25		0.31	2.92
Kennedy-2	0.55	0.25	0.06	0.37	0.33	0.09	0.46		0.11	0.26
Long-2	0.20	0.16								
Nimpkish-1	0.01	0.06								
Woss	0.15	0.08								

Table 35. Monthly and time-weighted mean values of areal primary production (mg C/m^2/h) for the 1982 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Bonilla-2				18.8		35.3	20.6			27.3
Curtis-2			3.3	42.1		54.3	35.0			43.3
Kennedy-1	14.1	7.9	26.0	29.8	35.4	31.6	101.3		6.0	37.5
Kennedy-2	4.5	5.5	4.2	7.2	3.6	1.9	11.5		2.4	5.5
Long-2	5.2	6.5								
Nimpkish-1	0.8	0.8								
Woss	2.4	4.0								

Table 36. Monthly and time-weighted mean values of daily primary production (mg C/m^2/d) for the 1982 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Bonilla-2				175.1		324.4	218.9			256.0
Curtis-2				510.9		437.0	426.0			461.9
Kennedy-1	102.0	60.0	225.6	263.2	369.4	319.4	706.0		19.0	312.0
Kennedy-2	39.3	42.9	38.1	69.7	36.5	23.4	82.0		8.3	47.1
Long-2	29.5	104.2								
Nimpkish-1		6.8								
Woss		32.0								

Table 37. Monthly and time-weighted mean values of primary production per unit of light (mg C/Einstein) for the 1982 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Bonilla-2				4.15		9.16	10.07			7.50
Curtis-2			2.50	10.50		13.28	21.32			12.26
Kennedy-1	5.71	1.60	4.97	6.11	19.78	37.23	29.36		4.31	15.96
Kennedy-2	2.20	1.14	0.84	1.62	1.95	2.73	3.41		1.89	1.97
Long-2	1.55	15.58								
Nimpkish-1		0.27								
Woss		1.26								

Table 38. Monthly and time-weighted mean values of volumetric zooplankton biomass (mg dry weight/m^3) for the 1982 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Awun			14.3	32.3	72.3	31.0	54.9	21.1		42.6
Bonilla-2			14.5	7.1	45.3	21.7	25.9	20.6		24.1
Curtis-2			4.5	11.7	5.4	9.9	8.1	16.6		9.3
Eden			7.2	11.1	59.1	38.9	47.3	21.3		35.6
Great Central-1	3.2	2.8	5.1	25.0[a]	17.2[a]	5.5[a]		16.6[a]	4.8	11.0
Great Central-2	2.3	2.3	9.0[a]	6.3	24.6[a]	5.1[a]		8.4[a]	5.7	9.6
Henderson-2	2.5	3.0	5.0	6.7[a]	11.8[a]	5.5[a]		29.1[a]	4.3	9.7
Hobiton	2.4	2.9	15.5	18.8	14.5	12.9[a]		5.7	7.7	12.6
Ian-1			8.5	27.1	26.5	36.8	21.3	23.6		26.0
Ian-2			9.8	20.8	25.6	25.2	25.9	8.9		21.7
Kennedy-1	1.7	2.0	5.0	8.2	6.4	8.4	4.6		4.1	5.6
Kennedy-2	2.0	2.3	4.2	5.0	4.6	3.1	3.1		5.0	3.8
Kitlope						1.0				
Long-1	3.3		18.8	11.5	10.1	10.7	10.4		12.9	11.9
Long-2	1.5	4.3	10.0	3.1	15.6	10.2	6.6		7.8	8.8
Long-3	2.0	6.9								
Lowe						46.1				
Nimpkish-1	0.5	2.3	3.4	5.6	14.2	28.1[a]	10.3[a]		17.2[a]	13.1
Nimpkish-2	2.1	2.6	3.5	7.1	4.6	10.6[a]	12.5[a]		26.4[a]	8.7
Simpson (25 m)			3.7	14.8	29.1	40.2	15.0	5.0		22.1
Simpson (70 m)			3.3	8.9	13.0	25.3	18.2	4.8		14.7
Sproat-1	1.9	4.2	6.9[a]	3.8	4.3	3.9		3.6	4.4	4.5
Sproat-3	4.0	5.8	4.7	6.6	4.9	3.9[a]		5.8	4.9	5.2
Woss	3.7	10.1	9.6	7.1	3.3	6.9	16.3		5.1	8.6
Yakoun			5.0	9.1	11.5	8.4	3.6	2.7		7.4

[a] algal contamination

Table 39. Monthly and time-weighted mean values of areal zooplankton biomass (mg dry weight/m^2) for the 1982 study lakes.

Lake and station	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	$\bar{x}$
Awun (25)			358	808	1882	775	1372	528		1082
Bonilla-2 (25)			362	178	1134	542	648	515		603
Curtis-2 (25)			112	292	135	248	202	415		232
Eden (25)			180	278	1478	972	1182	532		890
Great Central-1(50)	160	140	255	1250[a]	860[a]	276[a]		830[a]	242	552
Great Central-2(50)	115	115	450[a]	315	1230[a]	254[a]		418[a]	285	480
Henderson-2 (50)	125	150	250	335[a]	590[a]	273[a]		1455[a]	214	484
Hobiton (50)	120	145	775	940	725	647[a]		284	386	630
Ian-1 (25)			212	678	662	920	532	590		650
Ian-2 (25)			245	520	639	630	648	222		542
Kennedy-1 (50)	85	100	250	410	320	421	230		207	282
Kennedy-2 (50)	100	115	210	250	230	156	155		252	188
Kitlope (25)						25				
Long-1 (50)	165		940	575	505	537	520		644	594
Long-2 (50)	75	215	500	155	780	508	330		388	440
Long-3 (40)	80	276								
Lowe (25)						1152				
Nimpkish-1 (25)	12	58	85	140	355	702[a]	258[a]		430[a]	326
Nimpkish-2 (25)	52	65	88	178	115	264[a]	312[a]		660[a]	218
Simpson (25)			92	370	728	1005	375	125		552
Simpson (70)			231	621	908	1771	1274	120		1004
Sproat-1 (50)	95	210	345[a]	190	215	197		180	218	224
Sproat-3 (50)	200	290	235	330	245	194[a]		290	244	259
Woss (25)	92	252	240	178	82	173	408		127	215
Yakoun (25)			125	228	286	210	90	68		184

[a] algal contamination

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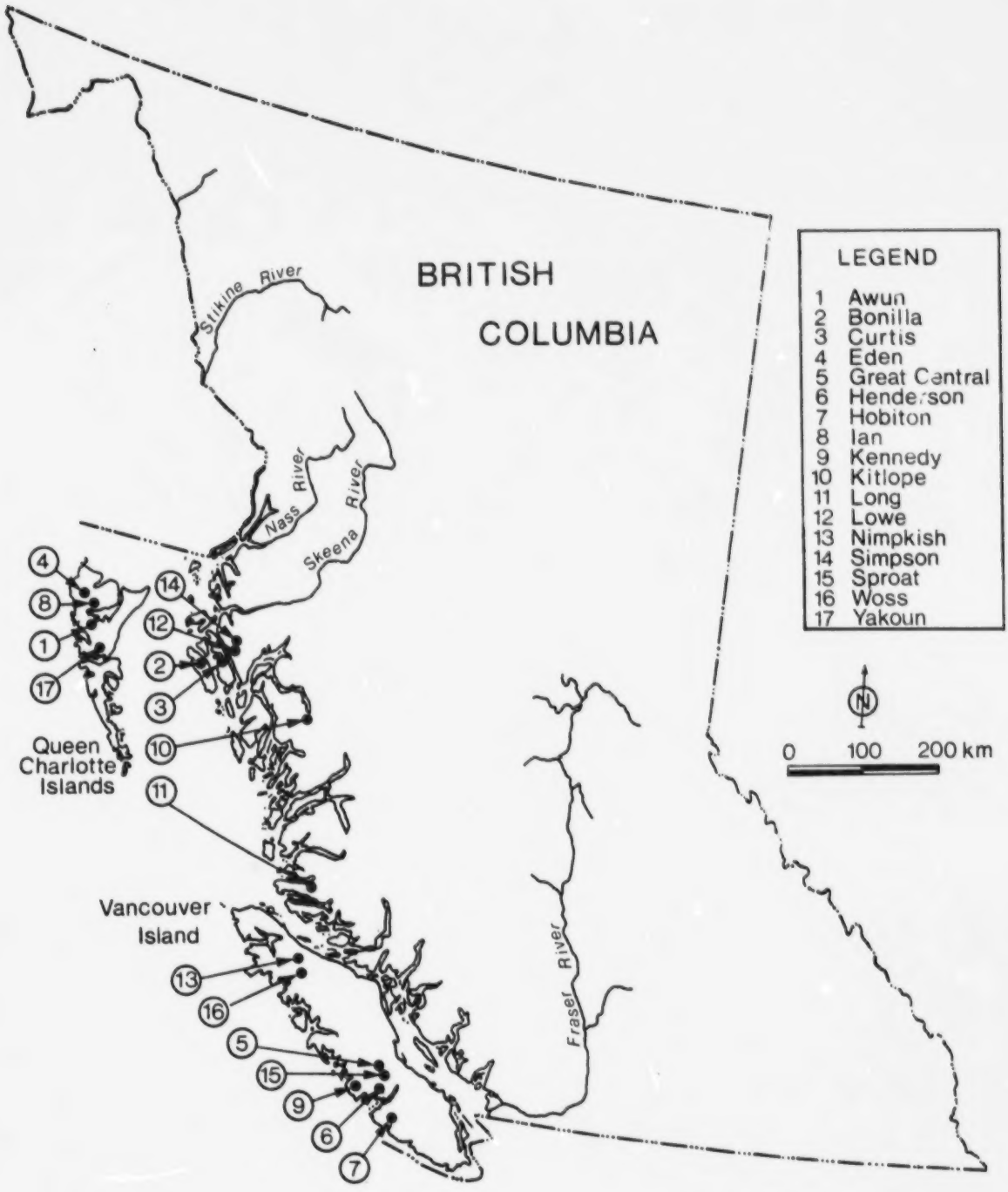

Fig. 1. Map showing locations of study lakes.

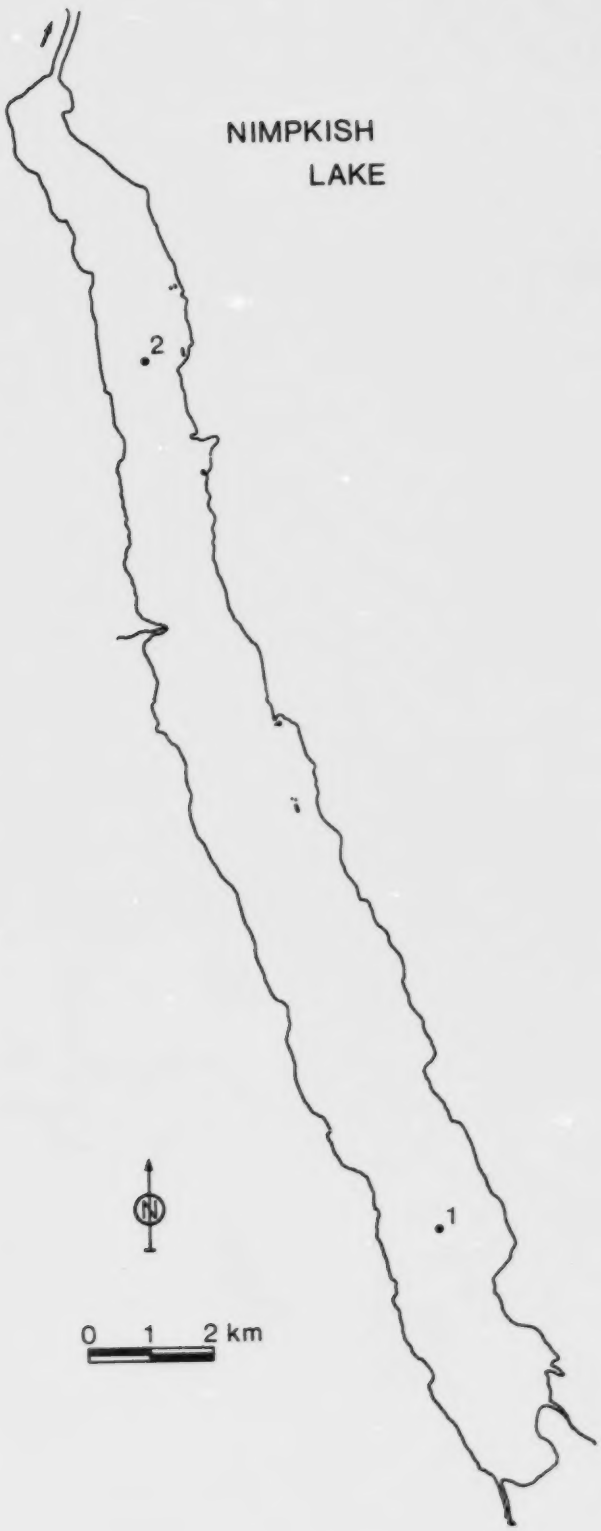

Fig. 2. Map showing station locations at Nimpkish Lake.

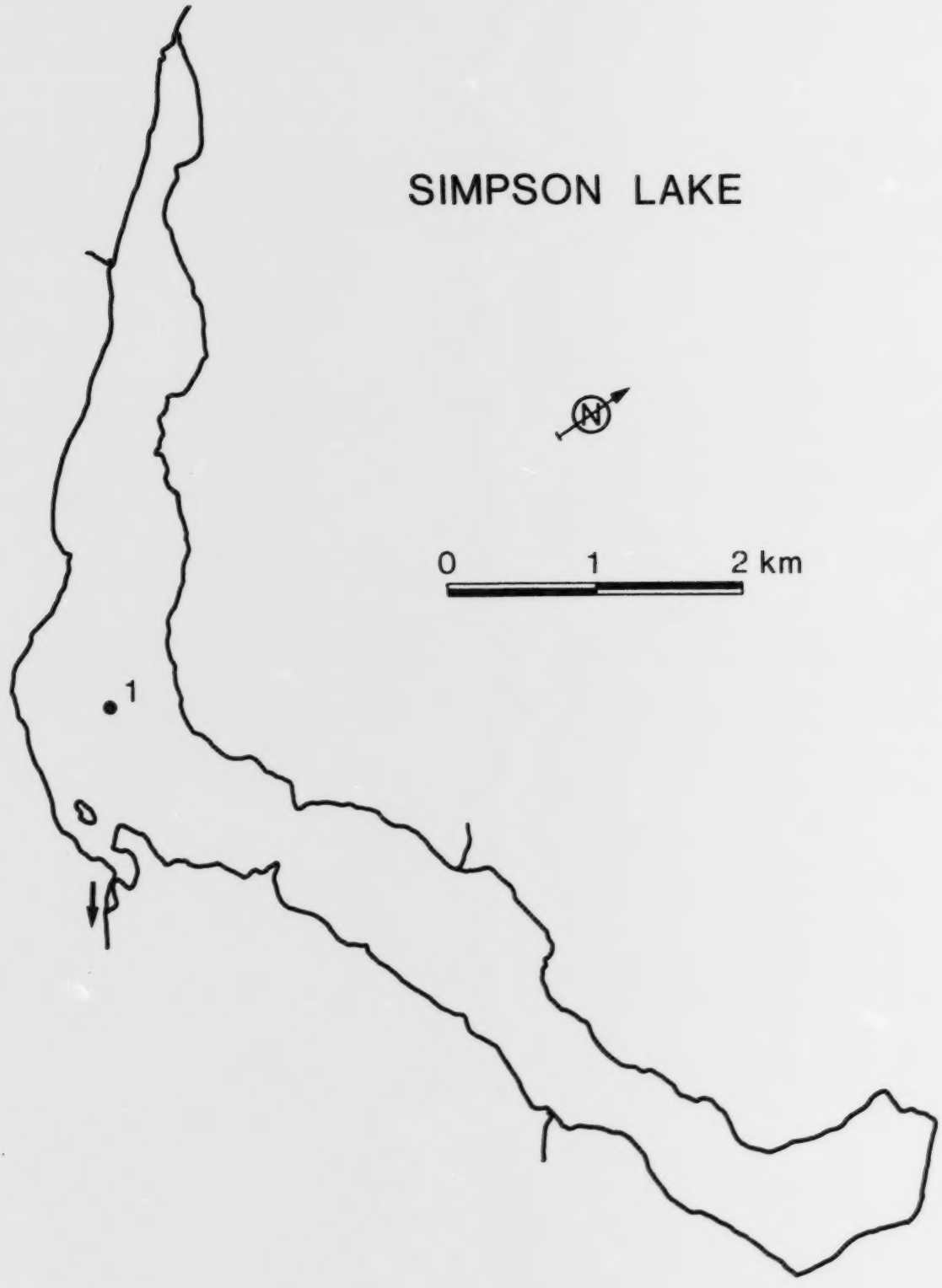

Fig. 3. Map showing station location at Simpson Lake.

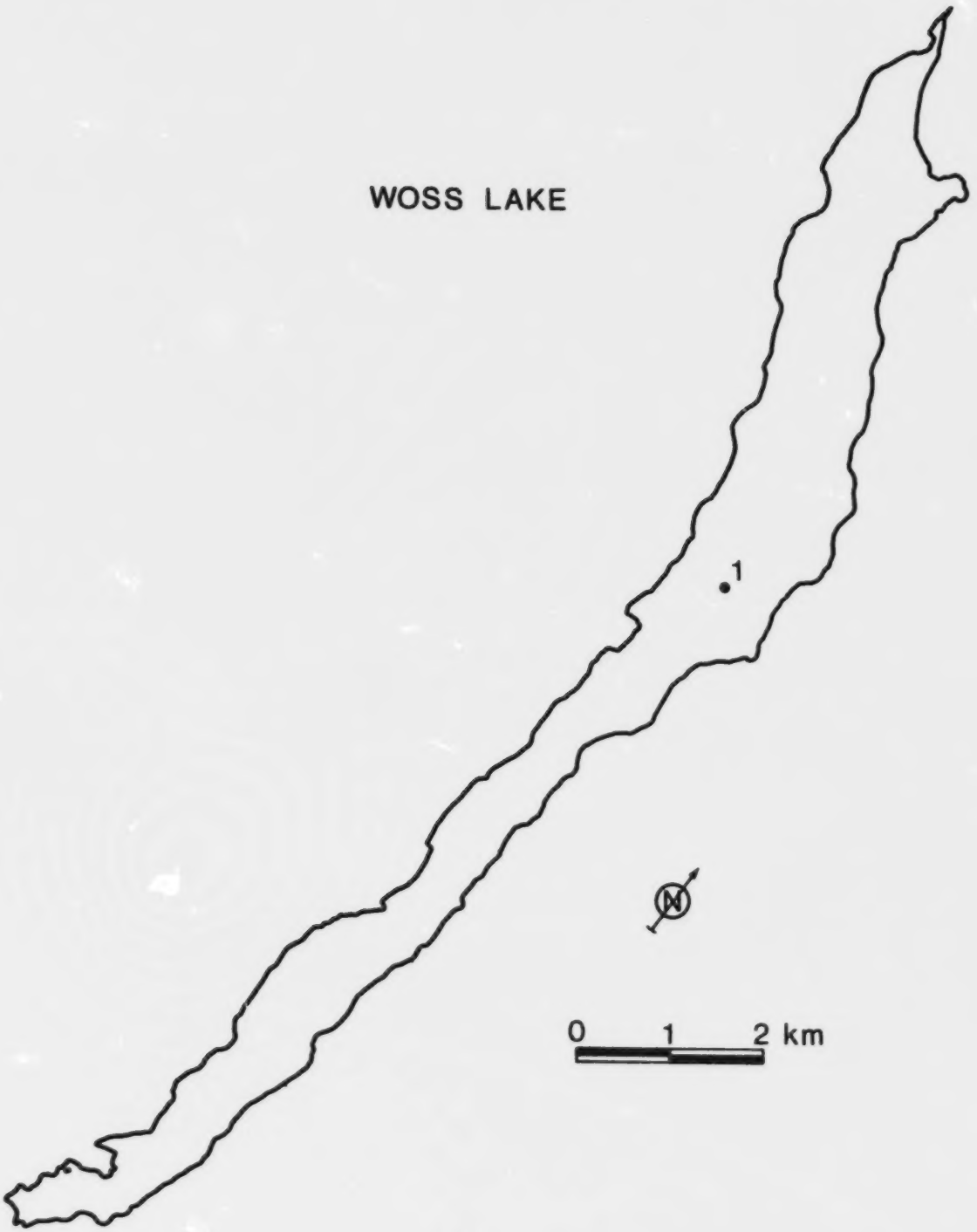

Fig. 4. Map showing station location at Woss Lake.

YAKOUN LAKE

Fig. 5. Map showing station location at Yakoun Lake.

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150-157	Sproat Lake - Station 3	206-213
158-165	Woss Lake	214-221
166-171	Yakoun Lake	222-227

[a] vertical lines on tables denote depth of maximum stability and depth to which epilimnetic means are calculated.

Appendix Table 1. Physical, chemical and biological data from Awun Lake, May 20, 1982.

Depth (m)	1	3	5	30	
Temperature (°C)	7.6	7.4	7.3	5.0	
Total dissolved solids (mg/L)			34.2		
Total dissolved nitrogen (µg N/L)	434	264	193	252	
Nitrate (µg N/L)	39	39	39	42	
Total phosphorus (µg P/L)	4	2	2	2	
Soluble reactive silicon (µg Si/L)	1850	1830	1850	1830	
Bacteria numbers ($x10^6$/mL)	1.12	1.10	1.10	0.49	
Total chlorophyll (µg/L)	0.78	0.78	0.44	0.12	

Appendix Table 2. Physical, chemical and biological data from Awun Lake, June 15, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	15.5	15.2	14.0	5.9
Total dissolved nitrogen (µg N/L)	195		191	176
Nitrate (µg N/L)	18		29	43
Total phosphorus (µg P/L)	3	3	3	3
Soluble reactive silicon (µg Si/L)	1780	1820	1820	1800
Bacteria numbers ($x10^6$/mL)	0.84	1.20	1.15	1.04
Total chlorophyll (µg/L)	2.27	1.18	0.58	0.22

Appendix Table 3. Physical, chemical and biological data from Awun Lake, July 14, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	16.3	16.0	15.4	5.5
Total dissolved solids (mg/L)			27.9	
Total nitrogen (µg N/L)	177	135	135	145
Total dissolved nitrogen (µg N/L)	144	167	164	144
Nitrate (µg N/L)	9	11	11	42
Total phosphorus (µg P/L)	4	6	3	6
Soluble reactive silicon (µg Si/L)	1750	1750	1750	1850
Bacteria numbers ($x10^6$/mL)	0.75	1.13	0.97	0.98
Total chlorophyll (µg/L)	1.40	1.58	1.57	0.16

Appendix Table 4. Physical, chemical and biological data from Awun Lake, August 18, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	18.0	17.7	17.3	5.9
Total dissolved solids (mg/L)			30.0	
Total nitrogen (µg N/L)	193			
Total dissolved nitrogen (µg N/L)	136	168	164	163
Nitrate (µg N/L)	<1	<1	3	48
Total phosphorus (µg P/L)	3	2	1	1
Soluble reactive silicon (µg Si/L)	1530	1480	1480	1640
Bacteria numbers (x10^6/mL)	0.15	1.06	0.64	0.89
Total chlorophyll (µg/L)	1.66	2.22	2.10	0.46

Appendix Table 5. Physical, chemical and biological data from Awun Lake, Sept. 15, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	18.1	17.4	16.7	6.4
Total dissolved solids (mg/L)			23.3	
Total nitrogen (µg N/L)	237	540	344	601
Total dissolved nitrogen (µg N/L)	236	198	299	222
Nitrate (µg N/L)	13	13	13	48
Total phosphorus (µg P/L)	4	5	3	3
Soluble reactive silicon (µg Si/L)	1620	1650	1640	1780
Bacteria numbers ($x10^6$/mL)	1.32	1.18	1.83	0.82
Total chlorophyll (µg/L)	2.30	2.20	1.76	0.18

Appendix Table 6. Physical, chemical and biological data from Awun Lake, October 15, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	13.2	13.0	12.7	6.0
Total dissolved solids (mg/L)			35.1	
Total nitrogen (µg N/L)	206	169	178	159
Total dissolved nitrogen (µg N/L)	159	171	147	149
Nitrate (µg N/L)	25	25	26	53
Total phosphorus (µg P/L)	3	4	3	3
Soluble reactive silicon (µg Si/L)	1600	1600	1640	1810
Bacteria numbers ($x10^6$/mL)	1.67	1.84	1.50	0.82
Total chlorophyll (µg/L)	3.13	2.67	2.11	0.22

Appendix Table 7. Physical, chemical and biological data from Bonilla Lake, May 19, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	7.3	7.3	7.3	7.2	7.2	7.1	7.1	6.6	5.7
Total dissolved solids (mg/L)					29.7				
Total dissolved nitrogen (µg N/L)		229		244	214				355
Nitrate (µg N/L)		13		12	12				12
Total phosphorus (µg P/L)		3		2	2				2
Particulate phosphorus (µg P/L)		2		2	2				2
Soluble reactive silicon (µg Si/L)		450		440					450
Bacteria numbers ($x10^6$/mL)		1.46		1.50	1.39				0.90
Total chlorophyll (µg/L)		0.64		0.62	0.64				0.46

Appendix Table 8. Physical, chemical and biological data from Bonilla Lake, June 16, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	18.7	17.9	17.6	17.3	13.5	10.6	9.0	7.8	6.7
Total dissolved solids (mg/L)					18.0				
pH									
Total alkalinity (mg/L $CaCO_3$)			6.2			5.9			
Dissolved inorganic carbon (mg C/L)[a]			1.22			1.12			
Dissolved inorganic carbon (mg C/L)[b]	1.09	0.59	0.76 0.87	0.75	0.63	1.09 0.82	0.68	0.99	
Total dissolved nitrogen (µg N/L)		163		123	123				128
Nitrate (µg N/L)		<1		<1	<1				13
Total phosphorus (µg P/L)		5		2	9				5
Particulate phosphorus (µg P/L)		5		5	5				2
Soluble reactive silicon (µg Si/L)		374		371	371				392
Bacteria numbers ($x10^6$/mL)		1.19		1.17	1.15				1.32
Light bottle glucose turnover time (h)		44		50	52				75
Dark bottle glucose turnover time (h)		53		71	110				80
Total chlorophyll (µg/L)		2.44		4.20	4.40				0.22
Total prim. prod. (>0.2 µm)(mg $C/m^3/h$)	3.76	4.05	6.17	3.20	0.69	0.10	0.03	0.01	
Fract. prim. prod. (0.2-3.0 µm)(mg $C/m^3/h$)		1.13		1.27	0.32				
Fract. prim. prod. (>3.0 µm)(mg $C/m^3/h$)		2.92		1.93	0.37				
Fract. prim. prod. (0.2-8.0 µm)(mg $C/m^3/h$)		2.80		2.32	0.54				
Fract. prim. prod. (3.0-8.0 µm)(mg $C/m^3/h$)		1.67		1.05	0.22				
Fract. prim. prod. (>8.0 µm)(mg $C/m^3/h$)		1.25		0.88	0.15				

[a]values determined using the potentiometric method (APHA 1976).
[b]values determined using the gas chromatograph (Stainton et al. 1977).

Appendix Table 9. Physical, chemical and biological data from Bonilla Lake, July 17, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	15.3	15.2	15.1	6.6
Total dissolved solids (mg/L)			21.2	
Total nitrogen (µg N/L)	144	151	148	127
Total dissolved nitrogen (µg N/L)	149	140	138	189
Nitrate (µg N/L)	<1	<1	<1	12
Total phosphorus (µg P/L)	5	5	5	4
Soluble reactive silicon (µg Si/L)	400	400	390	430
Bacteria numbers ($x10^6$/mL)	1.98	1.80	1.76	1.01
Total chlorophyll (µg/L)	5.38	4.92	4.73	0.28

Appendix Table 10. Physical, chemical and biological data from Bonilla Lake, August 19, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	18.0	17.8	17.7	17.5	17.2	15.5	12.8	8.5	6.8
Total dissolved solids (mg/L)					21.3				
pH			5.4			5.7			
Total alkalinity (mg/L $CaCO_3$)			0.92			1.00			
Dissolved inorganic carbon (mg C/L)[a]			1.99			1.39			
Dissolved inorganic carbon (mg C/L)[b]	0.81	1.07[c]	1.33	1.11	1.49	1.22	1.18	1.38	
Total nitrogen (µg N/L)		221		189	2?0				205
Total dissolved nitrogen (µg N/L)		157		185	150				168
Nitrate (µg N/L)		<1		<1	<1				12
Total phosphorus (µg P/L)		4		5	3				2
Particulate phosphorus (µg P/L)		5		4	3				2
Soluble reactive silicon (µg Si/L)		210		210	200				260
Bacteria numbers ($x10^6$/mL)		1.68		1.15	1.46				1.05
Light bottle glucose turnover time (h)		53		89	71				8203
Dark bottle glucose turnover time (h)		278		34	263				485
Total chlorophyll (µg/L)		5.56		4.92	5.24				0.62
Total prim. prod. (>0.2 µm)(mg C/m^3/h)	12.59	9.32	9.56	5.92	0.09	0.22	0.08	0.03	
Fract. prim. prod. (0.2-3.0 µm)(mg C/m^3/h)		2.88		2.17	0.00				
Fract. prim. prod. (>3.0 µm)(mg C/m^3/h)		6.44		3.76	0.34				
Fract. prim. prod. (0.2-8.0 µm)(mg C/m^3/h)		4.77		3.53	0.00				
Fract. prim. prod. (3.0-8.0 µm)(mg C/m^3/h)		1.89		1.36	0.19				
Fract. prim. prod. (>8.0 µm)(mg C/m^3/h)		4.55		2.39	0.15				

[a]values determined using the potentiometric method (APHA 1976).
[b]values determined using the gas chromatograph (Stainton et al. 1977).
[c]estimated value.

Appendix Table 11. Physical, chemical and biological data from Bonilla Lake, Sept. 14, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	17.9	17.7	17.6	17.4	17.1	16.3	15.1	9.5	7.8
Total dissolved solids (mg/L)					12.5				
Dissolved inorganic carbon (mg C/L)[a]	1.30	1.11	1.16	1.20	1.28	1.32	1.50	1.64	
Total nitrogen (µg N/L)		249		357	281				243
Total dissolved nitrogen (µg N/L)		177		231	217				216
Nitrate (µg N/L)		1		1	2				14
Total phosphorus (µg P/L)		7		4	4				<1
Particulate phosphorus (µg P/L)		1		2	1				<1
Soluble reactive silicon (µg Si/L)		360		330	340				330
Bacteria numbers ($x10^6$/mL)		2.38		2.08	1.83				1.00
Light bottle glucose turnover time (h)		58		35	75				297
Dark bottle glucose turnover time (h)		52		53	30				101
Total chlorophyll (µg/L)		6.07		6.62	6.16				0.25
Total prim. prod. (>0.2 µm)(mg C/m^3/h)	12.68	8.13	7.00	2.90	0.50	0.27	0.24	0.05	
Fract. prim. prod. (0.2-3.0 µm)(mg C/m^3/h)		3.04		1.52	0.17				
Fract. prim. prod. (>3.0 µm)(mg C/m^3/h)		5.09		1.38	0.32				
Fract. prim. prod. (0.2-8.0 µm)(mg C/m^3/h)		5.76		1.83	0.35				
Fract. prim. prod. (3.0-8.0 µm)(mg C/m^3/h)		2.72		0.30	0.18				
Fract. prim. prod. (>8.0 µm)(mg C/m^3/h)		2.37		1.07	0.14				

[a]values determined using the gas chromatograph (Stainton et al. 1977).

Appendix Table 12. Physical, chemical and biological data from Bonilla Lake, October 14, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	13.7	13.6	13.5	13.4	13.2	12.9	12.6	11.8	7.5
Total dissolved solids (mg/L)					25.7				
pH			5.9			5.9			
Total alkalinity (mg/L $CaCO_3$)			1.50			1.07			
Dissolved inorganic carbon (mg C/L)[a]			1.45			0.99			
Total nitrogen (µg N/L)		199		147	178				179
Total dissolved nitrogen (µg N/L)		169		209	159				169
Nitrate (µg N/L)		2		2	2				15
Total phosphorus (µg P/L)		6		4	4				4
Particulate phosphorus (µg P/L)		3		3	3				1
Soluble reactive silicon (µg Si/L)		490		490	490				400
Bacteria numbers ($x10^6$/mL)		1.61		2.00	2.37				0.96
Total chlorophyll (µg/L)		4.32		4.05	2.31				0.15

[a]values determined using the potentiometric method (APHA) 1976.

Appendix Table 13. Physical, chemical and biological data from Curtis Lake, May 19, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	5.1	5.1	5.1	5.1	5.1	5.0	5.0	5.0	5.0
Total dissolved solids (mg/L)					12.2				
Dissolved inorganic carbon (mg C/L)[a]	0.66	0.94	0.77	0.45	0.31	0.90	0.60	0.53	
Total dissolved nitrogen (µg N/L)		201		310	210				214
Nitrate (µg N/L)		22		27	28				28
Total phosphorus (µg P/L)		1		2	2				2
Particulate phosphorus (µg P/L)		2		2	2				2
Soluble reactive silicon (µg Si/L)		440		430	430				440
Bacteria numbers ($x10^6$/mL)		1.24		1.31	1.10				0.72
Light bottle glucose turnover time (h)		35		42	38				50
Dark bottle glucose turnover time (h)		47		38	85				63
Total chlorophyll (µg/L)		0.86		0.98	0.98				0.60
Total prim. prod. (>0.2 µm)(mg C/m^3/h)	0.96	0.75	0.42	0.21	0.30	0.05	0.04	0.05	
Fract. prim. prod. (0.2-3.0 µm)(mg C/m^3/h)		0.00		0.13	0.27				
Fract. prim. prod. (>3.0 µm)(mg C/m^3/h)		0.82		0.09	0.03				
Fract. prim. prod. (0.2-8.0 µm)(mg C/m^3/h)		0.35		0.08	0.27				
Fract. prim. prod. (3.0-8.0 µm)(mg C/m^3/h)		0.42		0.00	<0.01				
Fract. prim. prod. (>8.0 µm)(mg C/m^3/h)		0.40		0.13	0.02				

[a]values determined using the gas chromatograph (Stainton et al. 1977).

Appendix Table 14. Physical, chemical and biological data from Curtis Lake, June 16, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	19.5	19.0	18.4	17.0	11.2	9.0	7.0	6.0	5.7
Total dissolved solids (mg/L)					10.6				
pH									
Total alkalinity (mg/L $CaCO_3$)			6.6			6.0			
Dissolved inorganic carbon (mg C/L)[a]			1.17			1.12			
Dissolved inorganic carbon (mg C/L)[b]			0.47			0.92			
	0.70	0.58	0.58	0.71	0.74	0.66	1.36	0.75	
Total dissolved nitrogen (µg N/L)		141		112	131				186
Nitrate (µg N/L)		3		<1	<1				26
Total phosphorus (µg P/L)		5		5	3				4
Particulate phosphorus (µg P/L)		9		6	5				3
Soluble reactive silicon (µg Si/L)		147		198	234				381
Bacteria numbers ($x10^6$/mL)		2.03		1.28	1.25				1.16
Light bottle glucose turnover time (h)		40		27	32				713
Dark bottle glucose turnover time (h)		30		31	35				92
Total chlorophyll (µg/L)		5.40		3.60	4.00				0.54
Total prim. prod. (>0.2 µm)(mg C/m^3/h)	14.11	11.12	6.07	6.21	2.62	0.63	0.26	0.04	
Fract. prim. prod. (0.2-3.0 µm)(mg C/m^3/h)		1.37		1.56	0.43				
Fract. prim. prod. (>3.0 µm)(mg C/m^3/h)		9.75		4.66	2.19				
Fract. prim. prod. (0.2-8.0 µm)(mg C/m^3/h)		3.29		2.92	0.81				
Fract. prim. prod. (3.0-8.0 µm)(mg C/m^3/h)		1.92		1.36	0.38				
Fract. prim. prod. (>8.0 µm)(mg C/m^3/h)		7.83		3.29	1.81				

[a]values determined using the potentiometric method (APHA 1976).
[b]values determined using the gas chromatograph (Stainton et al. 1977).

Appendix Table 15. Physical, chemical and biological data from Curtis Lake, July 15, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	15.8	15.5	15.1	5.3
Total dissolved solids (mg/L)			13.3	
Total nitrogen (µg N/L)	154	126	140	154
Total dissolved nitrogen (µg N/L)	111	118	124	129
Nitrate (µg N/L)	1	<1	<1	26
Total phosphorus (µg P/L)	10	10	10	4
Soluble reactive silicon (µg Si/L)	140	130	130	430
Bacteria numbers ($x10^6$/mL)	2.09	2.02	1.73	0.83
Total chlorophyll (µg/L)	3.82	7.08	6.53	0.70

Appendix Table 16. Physical, chemical and biological data from Curtis Lake, August 19, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	19.2	18.7	18.4	18.1	17.0	11.7	7.2	6.0	5.7
Total dissolved solids (mg/L)					12.6				
pH			6.2			5.9			
Total alkalinity (mg/L $CaCO_3$)			1.05			0.82			
Dissolved inorganic carbon (mg C/L)[a]			0.57			0.80			
Dissolved inorganic carbon (mg C/L)[b]	0.65	0.76	0.87	0.86	1.07	1.23	1.33	1.08	
Total nitrogen (µg N/L)		212		213	175				159
Total dissolved nitrogen (µg N/L)		132		152	135				130
Nitrate (µg N/L)		<1		<1	<1				27
Total phosphorus (µg P/L)		6		5	4				1
Particulate phosphorus (µg P/L)		9		8	6				2
Soluble reactive silicon (µg Si/L)		40		70	90				210
Bacteria numbers ($x10^6$/mL)		0.77		2.17	1.41				0.79
Light bottle glucose turnover time (h)		32		43	77				273
Dark bottle glucose turnover time (h)		141		119	40				229
Total chlorophyll (µg/L)		6.24		6.16	4.68				0.76
Total prim. prod. (>0.2 µm)(mg C/m^3/h)	14.02	12.49	12.17	8.80	2.65	0.72	0.37	0.11	
Fract. prim. prod. (0.2-3.0 µm)(mg C/m^3/h)		3.72		4.26	1.43				
Fract. prim. prod. (>3.0 µm)(mg C/m^3/h)		8.77		4.54	1.22				
Fract. prim. prod. (0.2-8.0 µm)(mg C/m^3/h)		9.88		7.24	1.87				
Fract. prim. prod. (3.0-8.0 µm)(mg C/m^3/h)		6.15		2.98	0.44				
Fract. prim. prod. (>8.0 µm)(mg C/m^3/h)		2.62		1.56	0.79				

[a]values determined using the potentiometric method (APHA 1976).
[b]values determined using the gas chromatograph (Stainton et al. 1977).

Appendix Table 17. Physical, chemical and biological data from Curtis Lake, Sept. 14, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	19.4	17.8	17.0	16.7	16.1	14.7	11.7	7.1	6.0
Total dissolved solids (mg/L)					15.9				
Dissolved inorganic carbon (mg C/L)[a]	1.09	1.12	1.22	1.33	1.31	1.35	1.39	1.72	
Total nitrogen (µg N/L)		494		251	208				167
Total dissolved nitrogen (µg N/L)		204		191	213				188
Nitrate (µg N/L)		32		21	7				29
Total phosphorus (µg P/L)		11		5	3				1
Particulate phosphorus (µg P/L)		3		2	<1				<1
Soluble reactive silicon (µg Si/L)		300		300	290				310
Bacteria numbers (x10^6/mL)		2.21		2.19	1.81				0.76
Light bottle glucose turnover time (h)		30		26	25				802
Dark bottle glucose turnover time (h)		27		25	44				209
Total chlorophyll (µg/L)		11.60		4.70	3.77				0.81
Total prim. prod. (>0.2 µm)(mg C/m^3/h)	24.61	11.36	5.40	2.48	0.15	0.29	0.24	0.10	
Fract. prim. prod. (0.2-3.0 µm)(mg C/m^3/h)		5.26		1.24	0.00				
Fract. prim. prod. (>3.0 µm)(mg C/m^3/h)		6.09		1.24	0.19				
Fract. prim. prod. (0.2-8.0 µm)(mg C/m^3/h)		6.82		1.58	0.00				
Fract. prim. prod. (3.0-8.0 µm)(mg C/m^3/h)		1.56		0.34	0.00				
Fract. prim. prod. (>8.0 µm)(mg C/m^3/h)		4.53		0.90	0.22				

[a]values determined using the gas chromatograph (Stainton et al. 1977).

Appendix Table 18. Physical, chemical and biological data from Curtis Lake, October 14, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	12.8	12.6	12.3	12.1	11.7	11.3	10.9	8.6	5.8
Total dissolved solids (mg/L)					16.4				
pH			6.0			6.0			
Total alkalinity (mg/L $CaCO_3$)			1.50			0.92			
Dissolved inorganic carbon (mg C/L)[a]			1.28			0.79			
Total nitrogen (µg N/L)		145		132	132				160
Total dissolved nitrogen (µg N/L)		115		128	186				158
Nitrate (µg N/L)		12		11	14				30
Total phosphorus (µg P/L)		4		6	4				3
Particulate phosphorus (µg P/L)		3		3	2				1
Soluble reactive silicon (µg Si/L)		440		440	440				370
Bacteria numbers ($x10^6$/mL)		1.69		2.09	1.61				0.62
Total chlorophyll (µg/L)		3.77		3.40	1.56				0.64

[a]values determined using the potentiometric method (APHA 1976).

Appendix Table 19. Physical, chemical and biological data from Eden Lake, May 20, 1982.

Depth (m)	1	3	5	30	
Temperature (°C)	7.6	7.5	7.4	6.0	
Total dissolved solids (mg/L)			28.9		
Total dissolved nitrogen (µg N/L)	510	234	312	403	
Nitrate (µg N/L)	53	53	52	56	
Total phosphorus (µg P/L)	2	2	2	2	
Soluble reactive silicon (µg Si/L)	2110	2070	2060	2060	
Bacteria numbers ($x10^6$/mL)	1.19	1.40	1.28	0.88	
Total chlorophyll (µg/L)	1.32	1.10	1.04	0.26	

Appendix Table 20. Physical, chemical and biological data from Eden Lake, June 15, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	14.6	14.1	13.4	5.9
Total dissolved solids (mg/L)			32.7	
Total dissolved nitrogen (µg N/L)	211	168	228	211
Nitrate (µg N/L)	39	41	42	61
Total phosphorus (µg P/L)	4	3	1	2
Soluble reactive silicon (µg Si/L)	2030	2010	2020	2050
Bacteria numbers ($x10^6$/mL)	1.04	0.92	0.88	1.25
Total chlorophyll (µg/L)	2.60	2.60	2.02	0.38

Appendix Table 21. Physical, chemical and biological data from Eden Lake, July 14, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	16.4	16.3	16.2	6.0
Total dissolved solids (mg/L)			35.2	
Total nitrogen (µg N/L)	143	160	172	163
Total dissolved nitrogen (µg N/L)	132	154	154	175
Nitrate (µg N/L)	13	13	13	64
Total phosphorus (µg P/L)	8	4	2	5
Soluble reactive silicon (µg Si/L)	1920	1940	1940	2090
Bacteria numbers ($x10^6$/mL)	0.62	0.87	0.82	0.91
Total chlorophyll (µg/L)	2.23	3.22	2.15	0.41

Appendix Table 22. Physical, chemical and biological data from Eden Lake, August 18, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	17.1	16.8	16.4	6.4
Total dissolved solids (mg/L)			47.3	
Total nitrogen (µg N/L)	201	204	175	191
Total dissolved nitrogen (µg N/L)	171	161	180	200
Nitrate (µg N/L)	26	27	25	67
Total phosphorus (µg P/L)	4	2	3	2
Soluble reactive silicon (µg Si/L)	1770	1750	1720	1870
Bacteria numbers ($x10^6$/mL)	0.29	1.61	1.62	
Total chlorophyll (µg/L)	1.32	1.42	1.58	0.28

Appendix Table 23. Physical, chemical and biological data from Eden Lake, Sept. 15, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	17.5	17.0	16.5	6.4
Total dissolved solids (mg/L)			35.3	
Total nitrogen (µg N/L)	643	447	362	352
Total dissolved nitrogen (µg N/L)	225	236	229	258
Nitrate (µg N/L)	35	34	34	64
Total phosphorus (µg P/L)	5	5	6	3
Soluble reactive silicon (µg Si/L)	2040	2050	2040	2060
Bacteria numbers ($x10^6$/mL)	1.44	1.38	1.73	0.87
Total chlorophyll (µg/L)	1.74	1.84	1.36	0.78

Appendix Table 24. Physical, chemical and biological data from Eden Lake, October 15, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	13.1	13.0	12.8	6.4
Total nitrogen (µg N/L)	217	261	228	198
Total dissolved nitrogen (µg N/L)	231	203	217	169
Nitrate (µg N/L)	46	46	46	73
Total phosphorus (µg P/L)	4	4	5	3
Soluble reactive silicon (µg Si/L)	2060	2060	2060	2040
Bacteria numbers ($x10^6$/mL)	2.04	2.10	1.92	1.10
Total chlorophyll (µg/L)	1.51	1.48	1.12	0.18

Appendix Table 25. Physical, chemical and biological data from Great Central Lake, Stn.1, March 23, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	6.6	5.8	5.5	4.7	4.4
Total dissolved solids (mg/L)			23.3		
Total dissolved nitrogen (µg N/L)	186	202	189	145	148
Nitrate (µg N/L)	40	39	39	40	41
Total phosphorus (µg P/L)	1	1	2	2	1
Particulate phosphorus (µg P/L)	0.5	1	0.5	0.5	0.5
Soluble reactive silicon (µg Si/L)	775	772	742	742	732
Bacteria numbers ($x10^6$/mL)	0.47	1.00	1.01	1.29	1.24
Total chlorophyll (µg/L)	0.70	0.50	0.36	0.30	0.20

Appendix Table 26. Physical, chemical and biological data from Great Central Lake, Stn.1, April 20, 1982.

Depth (m)	1	3	5	23	40	
Temperature (°C)	7.0	6.8	6.5	5.2	4.7	
Total dissolved solids (mg/L)			23.7			
Total dissolved nitrogen (µg N/L)	279	480	474	240	240	
Nitrate (µg N/L)	32	32	33	38	41	
Total phosphorus (µg P/L)	<1	1	2	<1		
Particulate phosphorus (µg P/L)	<0.5	<1	<1	<1	<1	
Soluble reactive silicon (µg Si/L)	1000	1000	990	990	990	
Bacteria numbers ($x10^6$/mL)	0.71	0.91	0.74	0.86	0.98	
Total chlorophyll (µg/L)	0.62	0.80	1.29	0.68	0.28	

Appendix Table 27. Physical, chemical and biological data from Great Central Lake, Stn.1, May 29, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	15.0	14.0	13.3	5.7	4.8
Total dissolved solids (mg/L)			25.9		
Total dissolved nitrogen (µg N/L)	221	378	205	652	234
Nitrate (µg N/L)	10	9	10	36	41
Total phosphorus (µg P/L)	<1	1	1	<1	<1
Particulate phosphorus (µg P/L)	1.0	1.5	1.5	0.5	0.5
Soluble reactive silicon (µg Si/L)	860	850	850	960	970
Bacteria numbers ($x10^6$/mL)	0.76	0.58	0.78	0.71	0.52
Total chlorophyll (µg/L)	1.12	1.46	1.66	0.98	0.26

Appendix Table 28. Physical, chemical and biological data from Great Central Lake, Stn.1, June 25, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	22.0	20.3	12.9	6.0	5.1
Total dissolved solids (mg/L)			27.3		
Total dissolved nitrogen (µg N/L)	100	109	142	154	137
Nitrate (µg N/L)	1	1	6	28	39
Total phosphorus (µg P/L)	3	2	2	1	1
Particulate phosphorus (µg P/L)	<1	1	<1	<1	<1
Soluble reactive silicon (µg Si/L)	540	500	470	870	930
Bacteria numbers ($x10^6$/mL)	0.80	0.82	0.63	0.49	0.69
Total chlorophyll (µg/L)	0.66	0.68	1.44	3.80	0.42

Appendix Table 29. Physical, chemical and biological data from Great Central Lake, Stn.1, July 30, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	19.3	19.1	18.5	6.3	5.0
Total dissolved solids (mg/L)			24.7		
Total nitrogen (µg N/L)	106	107	102	118	122
Total dissolved nitrogen (µg N/L)	120	109	89	106	109
Nitrate (µg N/L)	<1	<1	<1	29	26
Total phosphorus (µg P/L)	2	2	2	1	1
Particulate phosphorus (µg P/L)	2	3	2	3	<2
Soluble reactive silicon (µg Si/L)	430	460	450	870	760
Bacteria numbers ($x10^6$/mL)	1.59	1.13	0.63	1.10	0.84
Total chlorophyll (µg/L)	0.52	0.51	0.51	5.47	1.13

Appendix Table 30. Physical, chemical and biological data from Great Central Lake, Stn.1, August 27, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	20.3	20.2	20.1	5.9	4.9
Total dissolved solids (mg/L)			21.9		
Total nitrogen (µg N/L)	102	110	117	139	146
Total dissolved nitrogen (µg N/L)	127	137	129	124	149
Nitrate (µg N/L)	<1	<1	<1	22	47
Total phosphorus (µg P/L)	3	2	2	2	1
Particulate phosphorus (µg P/L)	1	1	1	<1	<1
Soluble reactive silicon (µg Si/L)	920	330	290	570	720
Bacteria numbers ($x10^6$/mL)	1.07	1.02	0.88	0.81	0.60
Total chlorophyll (µg/L)	0.96	1.20	1.04	7.36	1.20

Appendix Table 31. Physical, chemical and biological data from Great Central Lake, Stn.1, October 1, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	16.8	16.7	16.5	6.1	5.0
Total dissolved solids (mg/L)			18.1		
Total nitrogen (µg N/L)	151	135	154	145	198
Total dissolved nitrogen (µg N/L)	175	85	84	107	131
Nitrate (µg N/L)	1	<1	<1	12	36
Total phosphorus (µg P/L)	2	1	2	1	1
Particulate phosphorus (µg P/L)	<1	1	1	<1	<1
Soluble reactive silicon (µg Si/L)	530	490	510	790	1020
Bacteria numbers ($x10^6$/mL)	1.08	1.15	1.10	0.80	0.62
Total chlorophyll (µg/L)	0.81	0.86	0.99	6.72	0.72

Appendix Table 32. Physical, chemical and biological data from Great Central Lake, Stn.1, Nov. 5, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	10.5	10.4	10.4	6.8	4.5
Total dissolved solids (mg/L)			18.7		
Total nitrogen (µg N/L)	139	90	137	97	163
Total dissolved nitrogen (µg N/L)	103	95	81	119	104
Nitrate (µg N/L)	3	3	3	13	48
Total phosphorus (µg P/L)	2	2	2	1	5
Particulate phosphorus (µg P/L)	1	1	1	1	1
Soluble reactive silicon (µg Si/L)	490	450	420	610	990
Bacteria numbers ($x10^6$/mL)	1.13	0.88	1.28	1.00	0.60
Total chlorophyll (µg/L)	1.69	1.56	1.64	2.13	0.83

Appendix Table 33. Physical, chemical and biological data from Great Central Lake, Stn.2, March 23, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	6.0	5.3	5.0	4.6	4.3
Total dissolved nitrogen (µg N/L)	117	125	122	116	161
Nitrate (µg N/L)	42	41	42	42	43
Total phosphorus (µg P/L)	2	2	1	1	1
Particulate phosphorus (µg P/L)	0.5	0.5	0.5	0.5	0.5
Soluble reactive silicon (µg Si/L)	752	759	742	775	815
Bacteria numbers ($x10^6$/mL)	1.48	1.74		1.58	1.35
Total chlorophyll (µg/L)	0.24	0.46	0.30	0.20	0.16

Appendix Table 34. Physical, chemical and biological data from Great Central Lake, Stn.2, April 20, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	6.3	5.9	5.9	5.3	4.7
Total dissolved solids (mg/L)			21.8		
Total dissolved nitrogen (µg N/L)	306	306	195	195	297
Nitrate (µg N/L)	38	38	34	35	38
Total phosphorus (µg P/L)	<1	1	1	<1	<1
Particulate phosphorus (µg P/L)	<1	<1	<1	<1	<1
Soluble reactive silicon (µg Si/L)	980	980	980	990	990
Bacteria numbers (x10^6/mL)	0.52	0.68	0.52	0.71	0.88
Total chlorophyll (µg/L)	0.42	0.70	1.42	0.76	0.46

Appendix Table 35. Physical, chemical and biological data from Great Central Lake, Stn.2, May 29, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	14.3	13.0	11.9	6.0	4.9
Total dissolved solids (mg/L)			24.7		
Total dissolved nitrogen (µg N/L)	200	109	163	183	213
Nitrate (µg N/L)	10	9	10	36	41
Total phosphorus (µg P/L)	1	2	1	1	<1
Particulate phosphorus (µg P/L)	1.5	1.5	1.5	1	1
Soluble reactive silicon (µg Si/L)	900	900	910	920	990
Bacteria numbers ($x10^6$/mL)	0.63	0.62	0.67	0.77	0.79
Total chlorophyll (µg/L)	1.32	1.58	1.88	1.72	0.32

Appendix Table 36. Physical, chemical and biological data from Great Central Lake, Stn.2, June 25, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	21.1	20.6	18.0	6.9	5.1
Total dissolved solids (mg/L)			24.7		
Total dissolved nitrogen (µg N/L)	99	105	142	139	165
Nitrate (µg N/L)	<1	<1	2	28	36
Total phosphorus (µg P/L)	3	3	3	1	1
Particulate phosphorus (µg P/L)	<1	<1	1	1	<1
Soluble reactive silicon (µg Si/L)	500	510	470	870	930
Bacteria numbers ($x10^6$/mL)	0.79	0.62	0.73	0.55	0.42
Total chlorophyll (µg/L)	0.66	3.40	1.14	1.12	1.10

Appendix Table 37. Physical, chemical and biological data from Great Central Lake, Stn.2, July 30, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	19.5	19.0	18.3	6.0	5.1
Total dissolved solids (mg/L)			24.0		
Total nitrogen (µg N/L)	89	115	122	141	119
Total dissolved nitrogen (µg N/L)	92	101	98	107	147
Nitrate (µg N/L)	<1	<1	<1	25	45
Total phosphorus (µg P/L)	2	1	2	1	1
Particulate phosphorus (µg P/L)	<2	<1	2	3	<2
Soluble reactive silicon (µg Si/L)	480	480	470	820	940
Bacteria numbers ($x10^6$/mL)	1.12	1.16	1.25	1.05	0.70
Total chlorophyll (µg/L)	0.41	0.42	0.53	6.30	0.62

Appendix Table 38. Physical, chemical and biological data from Great Central Lake, Stn.2, August 27, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	20.6	20.3	20.0	6.2	5.0
Total dissolved solids (mg/L)			21.9		
Total nitrogen (µg N/L)	135	121	120	133	110
Total dissolved nitrogen (µg N/L)	75	136	108	107	143
Nitrate (µg N/L)	<1	<1	<1	14	47
Total phosphorus (µg P/L)	3	3	3	2	<1
Particulate phosphorus (µg P/L)	<2	<2	1	<1	<1
Soluble reactive silicon (µg Si/L)	480	350	100	510	740
Bacteria numbers ($x10^6$/mL)	1.12	1.20	1.16	0.82	0.58
Total chlorophyll (µg/L)	1.46	1.35	3.22	6.44	1.35

Appendix Table 39. Physical, chemical and biological data from Great Central Lake, Stn.2, October 1, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	17.2	17.1	17.1	5.9	4.9
Total dissolved solids (mg/L)			15.8		
Total nitrogen (µg N/L)	133	96	110	116	153
Total dissolved nitrogen (µg N/L)	107	124	143	148	144
Nitrate (µg N/L)	1	<1	<1	13	27
Total phosphorus (µg P/L)	3	4	4	1	<1
Particulate phosphorus (µg P/L)	1	2	2	1	<1
Soluble reactive silicon (µg Si/L)	490	480	470	820	1010
Bacteria numbers ($x10^6$/mL)	1.62	1.72	1.33	0.70	0.76
Total chlorophyll (µg/L)	1.64	1.79	1.87	7.45	0.69

Appendix Table 40. Physical, chemical and biological data from Great Central Lake, Stn.2, Nov. 5, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	10.3	10.3	10.2	9.5	5.3
Total dissolved solids (mg/L)			26.7		
Total nitrogen (µg N/L)	92	88	121	148	142
Total dissolved nitrogen (µg N/L)	128	148	93	88	114
Nitrate (µg N/L)	3	3	2	13	48
Total phosphorus (µg P/L)	2	2	2	2	1
Particulate phosphorus (µg P/L)	1	2	1	1	1
Soluble reactive silicon (µg Si/L)	480	460	410	530	
Bacteria numbers (x10^6/mL)	1.35	1.16	1.24	0.79	0.64
Total chlorophyll (µg/L)	2.31	2.00	2.29	1.69	2.26

Appendix Table 41. Physical, chemical and biological data from Henderson Lake, March 23, 1982.

Depth (m)	1	3	5	30	
Temperature (°C)	6.8	6.3	6.0	5.7	
Total dissolved solids (mg/L)			98.1		
Total dissolved nitrogen (µg N/L)	316	186	226	208	
Nitrate (µg N/L)	33	32	33	33	
Total phosphorus (µg P/L)	3	3	3	2	
Particulate phosphorus (µg P/L)	1	1	1	1	
Soluble reactive silicon (µg Si/L)	174	168	168	171	
Bacteria numbers ($x10^6$/mL)	1.09		0.89	0.78	
Total chlorophyll (µg/L)	0.20	0.22	0.38	0.38	

Appendix Table 42. Physical, chemical and biological data from Henderson Lake, April 20, 1982.

Depth (m)	1	3	5	30	
Temperature (°C)	8.0	7.8	7.6	6.4	
Total dissolved solids (mg/L)			87.9		
Total dissolved nitrogen (µg N/L)	738	441	606	345	
Nitrate (µg N/L)	29	29	31	30	
Total phosphorus (µg P/L)	1	1	2	2	
Particulate phosphorus (µg P/L)	<1	1	<1	1	
Soluble reactive silicon (µg Si/L)	540	530	538	534	
Bacteria numbers ($x10^6$/mL)	0.60	0.98	0.87	0.74	
Total chlorophyll (µg/L)	0.46	0.44	0.48	0.48	

Appendix Table 43. Physical, chemical and biological data from Henderson Lake, May 29, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	13.9	13.7	13.6	6.6
Total dissolved solids (mg/L)			81.6	
Total dissolved nitrogen (µg N/L)	193	167	173	163
Nitrate (µg N/L)	9	9	11	33
Total phosphorus (µg P/L)	4	3	3	<1
Particulate phosphorus (µg P/L)	2	2.5	2	1
Soluble reactive silicon (µg Si/L)	500	510	510	530
Bacteria numbers ($x10^6$/mL)	1.50	1.34	0.82	0.83
Total chlorophyll (µg/L)	2.80	3.04	2.64	0.16

Appendix Table 44. Physical, chemical and biological data from Henderson Lake, June 25, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	18.6	18.5	18.3	6.8
Total dissolved solids (mg/L)			75.0	
Total dissolved nitrogen (µg N/L)	138	131	171	148
Nitrate (µg N/L)	9	5	5	36
Total phosphorus (µg P/L)	4	5	4	2
Particulate phosphorus (µg P/L)	2	2	2	<1
Soluble reactive silicon (µg Si/L)	380	380	370	490
Bacteria numbers ($x10^6$/mL)	1.18	1.10	1.10	
Total chlorophyll (µg/L)	2.40	2.80	2.60	0.16

Appendix Table 45. Physical, chemical and biological data from Henderson Lake, July 30, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	19.1	19.1	19.0	6.9
Total dissolved solids (mg/L)			78.0	
Total nitrogen (µg N/L)	123	123	148	107
Total dissolved nitrogen (µg N/L)	104	90	118	142
Nitrate (µg N/L)	<1	<1	<1	40
Total phosphorus (µg P/L)	3	4	5	2
Particulate phosphorus (µg P/L)	4	5	5	2
Soluble reactive silicon (µg Si/L)	230	220	220	470
Bacteria numbers ($x10^6$/mL)	1.44	1.72	1.83	0.79
Total chlorophyll (µg/L)	4.60	4.°3	4.64	0.34

Appendix Table 46. Physical, chemical and biological data from Henderson Lake, August 27, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	19.3	19.2	19.2	6.9
Total dissolved solids (mg/L)			70.6	
Total nitrogen (µg N/L)	133	137	150	187
Total dissolved nitrogen (µg N/L)	140	126	99	178
Nitrate (µg N/L)	<1	<1	<1	42
Total phosphorus (µg P/L)	4	5	5	2
Particulate phosphorus (µg P/L)	2	2	2	1
Soluble reactive silicon (µg Si/L)	170	90	270	290
Bacteria numbers ($x10^6$/mL)	1.71	1.65	1.73	0.88
Total chlorophyll (µg/L)	3.13	2.94	1.01	0.40

Appendix Table 47. Physical, chemical and biological data from Henderson Lake, October 1, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	16.8	16.7	16.6	6.9
Total dissolved solids (mg/L)			64.6	
Total nitrogen (µg N/L)	163	122	165	153
Total dissolved nitrogen (µg N/L)	163	169	206	241
Nitrate (µg N/L)	<1	<1	<1	32
Total phosphorus (µg P/L)	4	3	3	<1
Particulate phosphorus (µg P/L)	2	2	2	<1
Soluble reactive silicon (µg Si/L)	210	200	200	520
Bacteria numbers ($x10^6$/mL)	1.32	0.98	0.88	1.00
Total chlorophyll (µg/L)	5.43	5.43	5.15	0.49

Appendix Table 48. Physical, chemical and biological data from Henderson Lake, November 5, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	10.4	10.3	10.3	7.8
Total dissolved solids (mg/L)			52.7	
Total nitrogen (µg N/L)	145	106	109	135
Total dissolved nitrogen (µg N/L)	111	236	135	114
Nitrate (µg N/L)	17	16	17	23
Total phosphorus (µg P/L)	2	2	2	2
Particulate phosphorus (µg P/L)	1	1	1	1
Soluble reactive silicon (µg Si/L)	380	290	280	350
Bacteria numbers ($x10^6$/mL)	1.42	1.10	1.02	0.81
Total chlorophyll (µg/L)	1.74	1.92	1.17	1.85

Appendix Table 49. Physical, chemical and biological data from Hobiton Lake, March 23, 1982.

Depth (m)	1	3	5	30	
Temperature (°C)	7.0	6.7	6.5	5.6	
Total dissolved solids (mg/L)			23.5		
Total dissolved nitrogen (µg N/L)	403	191	345	295	
Nitrate (µg N/L)	33	33	33	33	
Total phosphorus (µg P/L)	4	3	3	6	
Particulate phosphorus (µg P/L)	1	1	1	1	
Soluble reactive silicon (µg Si/L)	990	990	1010	990	
Bacteria numbers ($x10^6$/mL)	0.93	0.30	1.42	0.48	
Total chlorophyll (µg/L)	0.38	0.38	0.34	0.22	

Appendix Table 50. Physical, chemical and biological data from Hobiton Lake, April 20, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	7.2	7.2	7.1	6.1
Total dissolved solids (mg/L)			23.7	
Total dissolved nitrogen (µg N/L)	726	501	528	555
Nitrate (µg N/L)	24	24	23	34
Total phosphorus (µg P/L)	3	3	3	2
Particulate phosphorus (µg P/L)	1	1	<1	<1
Soluble reactive silicon (µg Si/L)	1090	1090	1090	1130
Bacteria numbers ($x10^6$/mL)	1.32	0.90	1.34	1.01
Total chlorophyll (µg/L)	1.36	1.70	1.56	0.36

Appendix Table 51. Physical, chemical and biological data from Hobiton Lake, May 29, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	16.4	16.2	15.9	6.0
Total dissolved solids (mg/L)			28.5	
Total dissolved nitrogen (µg N/L)	239	223	289	252
Nitrate (µg N/L)	1	1	2	37
Total phosphorus (µg P/L)	2	2	5	2
Particulate phosphorus (µg P/L)	2.5	3	3	2
Soluble reactive silicon (µg Si/L)	1000	1000	1000	1090
Bacteria numbers ($x10^6$/mL)		1.30	0.95	1.08
Total chlorophyll (µg/L)	1.36	1.28	1.32	0.24

Appendix Table 52. Physical, chemical and biological data from Hobiton Lake, June 25, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	20.5	20.2	19.2	6.1
Total dissolved solids (mg/L)			16.6	
Total dissolved nitrogen (µg N/L)	164	128	160	169
Nitrate (µg N/L)	37	38	67	65
Total phosphorus (µg P/L)	3	5	3	3
Particulate phosphorus (µg P/L)	1	2	2	1
Soluble reactive silicon (µg Si/L)	940	940	960	1050
Bacteria numbers ($x10^6$/mL)	0.86	0.58	0.89	0.86
Total chlorophyll (µg/L)	1.18	1.12	1.10	0.20

Appendix Table 53. Physical, chemical and biological data from Hobiton Lake, July 30, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	19.8	19.5	19.2	6.5
Total dissolved solids (mg/L)			27.3	
Total nitrogen (µg N/L)	122	195	160	126
Total dissolved nitrogen (µg N/L)	113	128	136	144
Nitrate (µg N/L)	<1	<1	<1	42
Total phosphorus (µg P/L)	4	4	4	2
Particulate phosphorus (µg P/L)	5	6	6	3
Soluble reactive silicon (µg Si/L)	930	940	910	1040
Bacteria numbers ($x10^6$/mL)	2.38	2.19	2.68	0.76
Total chlorophyll (µg/L)	1.66	1.70	1.85	0.32

Appendix Table 54. Physical, chemical and biological data from Hobiton Lake, August 27, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	20.4	20.2	20.0	6.4
Total dissolved solids (mg/L)			19.3	
Total nitrogen (µg N/L)	153	154	165	116
Total dissolved nitrogen (µg N/L)	148	151	209	198
Nitrate (µg N/L)	<1	<1	<1	47
Total phosphorus (µg P/L)	4	5	5	2
Particulate phosphorus (µg P/L	3	3	3	1
Soluble reactive silicon (µg Si/L)	670	720	670	880
Bacteria numbers ($x10^6$/mL)	1.59	1.51	1.24	0.88
Total chlorophyll (µg/L)	2.11	2.08	2.29	0.36

Appendix Table 55. Physical, chemical and biological data from Hobiton Lake, October 1, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	17.2	17.1	17.1	6.5
Total dissolved solids (mg/L)			23.3	
Total nitrogen (µg N/L)	206	139	159	195
Total dissolved nitrogen (µg N/L)	138	130	139	201
Nitrate (µg N/L)	1	<1	<1	34
Total phosphorus (µg P/L)	5	5	4	3
Particulate phosphorus (µg P/L)	2	2	3	<1
Soluble reactive silicon (µg Si/L)	890	880	870	950
Bacteria numbers ($x10^6$/mL)	2.10	1.80	2.58	0.68
Total chlorophyll (µg/L)	2.76	2.34	2.85	0.56

Appendix Table 56. Physical, chemical and biological data from Hobiton Lake, November 5, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	10.2	10.2	10.1	5.9
Total dissolved solids (mg/L)			14.1	
Total nitrogen (µg N/L)	107	110	92	111
Total dissolved nitrogen (µg N/L)	137	116	133	117
Nitrate (µg N/L)	11	11	13	11
Total phosphorus (µg P/L)	2	3	3	2
Particulate phosphorus (µg P/L)	2	2	2	1
Soluble reactive silicon (µg Si/L)	890	960	880	1070
Bacteria numbers ($x10^6$/mL)	1.15	1.23	1.56	0.69
Total chlorophyll (µg/L)	1.64	1.53	1.61	0.55

Appendix Table 57. Physical, chemical and biological data from Ian Lake, Station 1, May 20, 1982.

Depth (m)	1	3	5	30	
Temperature (°C)	7.7	7.4	7.1	6.0	
Total dissolved solids (mg/L)			28.2		
Total dissolved nitrogen (µg N/L)	287	246	284	287	
Nitrate (µg N/L)	27	27	26	33	
Total phosphorus (µg P/L	2	2	2	2	
Soluble reactive silicon (µg Si/L)	1780	1780	1760	1780	
Bacteria numbers ($x10^6$/mL)	1.04	1.16	1.13	1.06	
Total chlorophyll (µg/L)	1.06	0.58	0.38	0.16	

Appendix Table 58. Physical, chemical and biological data from Ian Lake, Station 1, June 15, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	14.3	14.1	13.3	6.8
Total dissolved solids (mg/L)			38.0	
Total dissolved nitrogen (µg N/L)	266	270	250	240
Nitrate (µg N/L)	36		45	34
Total phosphorus (µg P/L)	3	4	4	3
Soluble reactive silicon (µg Si/L)	1610	1600	1610	1600
Bacteria numbers ($x10^6$/mL)	1.62	1.38	1.29	1.19
Total chlorophyll (µg/L)	1.82	1.72	0.58	0.10

Appendix Table 59. Physical, chemical and biological data from Ian Lake, Station 1, July 14, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	15.2	15.1	14.9	8.1
Total dissolved solids (mg/L)			33.9	
Total nitrogen (µg N/L)	170	190	176	182
Total dissolved nitrogen (µg N/L)	159	158	156	145
Nitrate (µg N/L)	26	26	26	41
Total phosphorus (µg P/L)	8	7	7	4
Soluble reactive silicon (µg Si/L)	1730	1720	1720	1790
Bacteria numbers ($x10^6$/mL)	1.44	1.61	1.33	1.17
Total chlorophyll (µg/L)	1.32	1.35	1.30	0.20

Appendix Table 60. Physical, chemical and biological data from Ian Lake, Station 1, August 18, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	16.8	16.6	16.3	8.0
Total dissolved solids (mg/L)			34.0	
Total nitrogen (µg N/L)	222			
Total dissolved nitrogen (µg N/L)	166	174	144	190
Nitrate (µg N/L)	28	28	28	44
Total phosphorus (µg P/L)	2	2	2	2
Soluble reactive silicon (µg Si/L)	1400	1400	1410	1550
Bacteria numbers ($x10^6$/mL)	1.23	1.75	1.37	1.14
Total chlorophyll (µg/L)	1.30	1.92	1.32	0.26

Appendix Table 61. Physical, chemical and biological data from Ian Lake, Station 1, Sept. 15, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	17.2	16.8	16.5	8.5
Total dissolved solids (mg/L)			37.5	
Total nitrogen (µg N/L)	550	606	645	264
Total dissolved nitrogen (µg N/L)	228	254	213	236
Nitrate (µg N/L)	30	30	30	45
Total phosphorus (µg P/L)	5	4	4	3
Soluble reactive silicon (µg Si/L)	1700	1680	1710	1720
Bacteria numbers ($x10^6$/mL)	1.71	1.58	1.66	0.78
Total chlorophyll (µg/L)	1.86	1.24	0.71	0.17

Appendix Table 62. Physical, chemical and biological data from Ian Lake, Station 1, October 15, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	13.1	13.1	13.0	8.6
Total nitrogen (µg N/L)	204	175	159	217
Total dissolved nitrogen (µg N/L)	166	175	172	152
Nitrate (µg N/L)	32	32	32	56
Total phosphorus (µg P/L)	3	4	2	3
Soluble reactive silicon (µg Si/L)	1750	1760	1760	1750
Bacteria numbers ($x10^6$/mL)	1.67	1.99	1.62	0.84
Total chlorophyll (µg/L)	0.47	0.47	0.46	0.16

Appendix Table 63. Physical, chemical and biological data from Ian Lake, Station 2, May 20, 1982.

Depth (m)	1	3	5	30	
Temperature (°C)	7.7	7.6	7.5	5.9	
Total dissolved solids (mg/L)			40.6		
Total dissolved nitrogen (µg N/L)	224	280	320	320	
Nitrate (µg N/L)	40	40	40	44	
Total phosphorus (µg P/L)	2	2	2	2	
Soluble reactive silicon (µg Si/L)	1620	1620	1620	1620	
Bacteria numbers ($x10^6$/mL)	1.20	1.13	1.13	1.23	
Total chlorophyll (µg/L)	0.50	0.44	0.56	<0.06	

Appendix Table 64. Physical, chemical and biological data from Ian Lake, Station 2, June 15, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	13.1	13.0	12.5	7.5
Total dissolved solids (mg/L)			30.7	
Total dissolved nitrogen (µg N/L)	177	229	235	246
Nitrate (µg N/L)	33	34	34	37
Total phosphorus (µg P/L)	3	3	3	3
Soluble reactive silicon (µg Si/L)	1730	1710	1730	1720
Bacteria numbers ($x10^6$/mL)	1.02	1.51	1.31	1.41
Total chlorophyll (µg/L)	1.56	1.54	1.50	0.42

Appendix Table 65. Physical, chemical and biological data from Ian Lake, Station 2, July 14, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	14.5	14.4	14.2	6.9
Total dissolved solids (mg/L)			36.6	
Total nitrogen (µg N/L)	189	188	198	187
Total dissolved nitrogen (µg N/L)	1°3	207	206	195
Nitrate (µg N/L)	29	28	29	49
Total phosphorus (µg P/L)		6	7	4
Soluble reactive silicon (µg Si/L)	1630	1630	1640	1670
Bacteria numbers ($x10^6$/mL)	1.15	1.50	1.32	1.11
Total chlorophyll (µg/L)	0.96	1.02	0.93	0.13

Appendix Table 66. Physical, chemical and biological data from Ian Lake, Station 2, August 18, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	17.2	16.9	16.6	6.8
Total dissolved solids (mg/L)			24.6	
Total nitrogen (µg N/L)	335			
Total dissolved nitrogen (µg N/L)	195	191	194	206
Nitrate (µg N/L)	27	28	30	28
Total phosphorus (µg P/L)	3	2	2	2
Soluble reactive silicon (µg Si/L)	1360	1420	1480	1460
Bacteria numbers ($x10^6$/mL)	1.69	1.64	1.04	0.74
Total chlorophyll (µg/L)	1.34	1.70	1.36	0.28

Appendix Table 67. Physical, chemical and biological data from Ian Lake, Station 2, Sept. 15, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	17.9	17.7	17.5	7.3
Total dissolved solids (mg/L)			36.8	
Total nitrogen (µg N/L)	310	361	405	312
Total dissolved nitrogen (µg N/L)	283	298	355	254
Nitrate (µg N/L)	30	30	30	50
Total phosphorus (µg P/L)	4	4	4	4
Soluble reactive silicon (µg Si/L)	1610	1590	1600	1600
Bacteria numbers ($x10^6$/mL)	1.30	1.52	1.64	0.80
Total chlorophyll (µg/L)	1.68	1.48	1.30	0.10

Appendix Table 68. Physical, chemical and biological data from Ian Lake, Station 2, October 15, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	13.5	13.4	13.3	6.9
Total nitrogen (µg N/L)	217	260	198	191
Total dissolved nitrogen (µg N/L)	260	241	244	211
Nitrate (µg N/L)	36	36	36	56
Total phosphorus (µg P/L)	3	3	5	3
Soluble reactive silicon (µg Si/L)	1640	1650	1640	1610
Bacteria numbers ($x10^6$/mL)	1.59	1.62	1.46	1.34
Total chlorophyll (µg/L)	0.79	0.74	0.81	0.10

Appendix Table 69. Physical, chemical and biological data from Kennedy Lake, Stn.1, March 24, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	7.6	7.5	7.5	7.4	7.3	7.2	7.0	6.8	6.1
Total dissolved solids (mg/L)					23.2				
pH			7.3			7.2			
Total alkalinity (mg/L $CaCO_3$)			12.98			9.23			
Dissolved inorganic carbon (mg C/L)[a]			3.58			2.66			
Dissolved inorganic carbon (mg C/L)[b]		4.65		5.30	4.37			4.69	
Total dissolved nitrogen (µg N/L)		198		217	270				202
Nitrate (µg N/L)		69		71	71				79
Total phosphorus (µg P/L)		4		2	3				2
Particulate phosphorus (µg P/L)		1		1	1				1
Soluble reactive silicon (µg Si/L)		521		508	501				498
Bacteria numbers ($x10^6$/mL)		1.11		1.16	1.15				0.86
Light bottle glucose turnover time (h)		703		2001	184				247
Dark bottle glucose turnover time (h)		384		372	695				307
Total chlorophyll (µg/L)		0.44		0.58	0.62				0.20
Total prim. prod. (>0.2 µm)(mg C/m^3/h)	2.65	0.93	0.91	0.00	1.25	1.25	1.34	0.00	
Fract. prim. prod. (0.2-3.0 µm)(mg C/m^3/h)		0.53		0.00	1.25				
Fract. prim. prod. (>3.0 µm)(mg C/m^3/h)		0.40		0.00	0.00				
Fract. prim. prod. (0.2-8.0 µm)(mg C/m^3/h)		0.40		0.00	1.25				
Fract. prim. prod. (3.0-8.0 µm)(mg C/m^3/h)		0.00		0.00	0.00				
Fract. prim. prod. (>8.0 µm)(mg C/m^3/h)		0.53		0.00	0.00				

[a]values determined using the potentiometric method (APHA 1976).
[b]values determined using the gas chromatograph (Stainton et al. 1977).

Appendix Table 70. Physical, chemical and biological data from Kennedy Lake, Stn.1, April 21, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	8.5	8.3	8.2	8.0	7.9	7.7	7.5	7.2	6.8
Total dissolved solids (mg/L)					24.9				
pH			7.4			7.1			
Total alkalinity (mg/L $CaCO_3$)			12.85			12.48			
Dissolved inorganic carbon (mg C/L)[a]			3.48			3.73			
Total dissolved nitrogen (µg N/L)		636		474	648				534
Nitrate (µg N/L)		46		47	48				58
Total phosphorus (µg P/L)		3		2	2				<1
Particulate phosphorus (µg P/L)		1		1	1				1
Soluble reactive silicon (µg Si/L)		790		800	790				802
Bacteria numbers ($x10^6$/mL)		0.74		0.79	1.44				0.91
Light bottle glucose turnover time (h)		317		242	57				7518
Dark bottle glucose turnover time (h)		311		272					285
Total chlorophyll (µg/L)		1.54		1.48	1.24				0.30
Total prim. prod. (>0.2 µm)(mg C/m^3/h)	0.46	0.63	0.51	1.21	0.70	0.58	0.36	0.14	
Fract. prim. prod. (0.2-3.0 µm)(mg C/m^3/h)		0.23		0.65	0.48				
Fract. prim. prod. (>3.0 µm)(mg C/m^3/h)		0.39		0.56	0.22				
Fract. prim. prod. (0.2-8.0 µm)(mg C/m^3/h)		0.28		0.87	0.70				
Fract. prim. prod. (3.0-8.0 µm)(mg C/m^3/h)		0.05		0.22	0.21				
Fract. prim. prod. (>8.0 µm)(mg C/m^3/h)		0.35		0.34	0.01				

[a]values determined using the potentiometric method (APHA 1976).

Appendix Table 71. Physical, chemical and biological data from Kennedy Lake, Stn.1, May 28, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	16.4	16.2	16.1	15.8	15.0	10.3	8.8	7.8	6.8
Total dissolved solids (mg/L)					25.7				
pH			7.4			7.1			
Total alkalinity (mg/L $CaCO_3$)			13.73			14.60			
Dissolved inorganic carbon (mg C/L)[a]			3.65			4.27			
Total dissolved nitrogen (µg N/L)				186	188				219
Nitrate (µg N/L)				4	6				62
Total phosphorus (µg P/L)		3		3	3				1
Particulate phosphorus (µg P/L)		3		4	4				2
Soluble reactive silicon (µg Si/L)		520		510	480				790
Bacteria numbers ($x10^6$/mL)		0.88		0.89	0.94				0.98
Light bottle glucose turnover time (h)		36		31	42				189
Dark bottle glucose turnover time (h)		56		38	49				275
Total chlorophyll (µg/L)		4.72		4.96	4.80				0.24
Total prim. prod. (>0.2 µm)(mg C/m^3/h)	3.26	3.16	3.89	3.93	3.53	0.88	0.30	0.06	
Fract. prim. prod. (0.2-3.0 µm)(mg C/m^3/h)		0.12		0.40	0.26				
Fract. prim. prod. (>3.0 µm)(mg C/m^3/h)		3.05		3.53	3.27				
Fract. prim. prod. (0.2-8.0 µm)(mg C/m^3/h)		1.26		2.22	1.05				
Fract. prim. prod. (3.0-8.0 µm)(mg C/m^3/h)		1.14		1.82	0.79				
Fract. prim. prod. (>8.0 µm)(mg C/m^3/h)		1.90		1.71	2.48				

[a]values determined using the potentiometric method (APHA 1976).

Appendix Table 72. Physical, chemical and biological data from Kennedy Lake, Stn.1, June 24, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	20.8	20.7	20.5	20.4	20.1	13.0	11.0	8.9	6.9
Total dissolved solids (mg/L)					32.0				
pH			7.5			7.3			
Total alkalinity (mg/L $CaCO_3$)			15.17			15.97			
Dissolved inorganic carbon (mg C/L)[a]			3.91			4.38			
Total dissolved nitrogen (µg N/L)		148		180	179				203
Nitrate (µg N/L)		4		5	5				63
Total phosphorus (µg P/L)		4		4	5				2
Particulate phosphorus (µg P/L)		2		3	3				<1
Soluble reactive silicon (µg Si/L)		340		300	290				730
Bacteria numbers ($x10^6$/mL)				1.46	1.25				0.71
Light bottle glucose turnover time (h)		22		26	17				207
Dark bottle glucose turnover time (h)		48		22	17				153
Total chlorophyll (µg/L)		2.00		1.98	2.22				0.28
Total prim. prod. (>0.2 µm)(mg C/m^3/h)	2.94	3.83	3.51	5.07	3.05	1.25	0.74	0.23	
Fract. prim. prod. (0.2-3.0 µm)(mg C/m^3/h)		1.17		1.11	0.70				
Fract. prim. prod. (>3.0 µm)(mg C/m^3/h)		2.65		3.95	2.35				
Fract. prim. prod. (0.2-8.0 µm)(mg C/m^3/h)		1.91		2.55	1.50				
Fract. prim. prod. (3.0-8.0 µm)(mg C/m^3/h)		0.74		1.44	0.80				
Fract. prim. prod. (>8.0 µm)(mg C/m^3/h)		1.91		2.51	1.55				

[a]values determined using the potentiometric method (APHA 1976).

Appendix Table 73. Physical, chemical and biological data from Kennedy Lake, Stn.1, July 29, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	20.4	20.3	20.2	20.2	20.0	14.2	11.0	7.9	6.8
Total dissolved solids (mg/L)					26.7				
pH			7.4			7.5			
Total alkalinity (mg/L $CaCO_3$)			15.97			17.43			
Dissolved inorganic carbon (mg C/L)[a]			4.16			4.56			
Total nitrogen (µg N/L)		166		157	147				145
Total dissolved nitrogen (µg N/L)		120		161	126				180
Nitrate (µg N/L)		1		1	1				72
Total phosphorus (µg P/L)		5		6	9				2
Particulate phosphorus (µg P/L)		3		4	4				<2
Soluble reactive silicon (µg Si/L)		230		220	210				720
Bacteria numbers ($x10^6$/mL)		1.08		1.99	1.76				0.66
Light bottle glucose turnover time (h)		27		31	33				344
Dark bottle glucose turnover time (h)		30		37	36				277
Total chlorophyll (µg/L)		3.58		4.78	4.00				0.57
Total prim. prod. (>0.2 µm)(mg $C/m^3/h$)	5.48	6.03	5.90	5.96	2.96	1.26	0.44	0.14	
Fract. prim. prod. (0.2-3.0 µm)(mg $C/m^3/h$)		1.93		1.69	0.55				
Fract. prim. prod. (>3.0 µm)(mg $C/m^3/h$)		4.10		4.27	2.41				
Fract. prim. prod. (0.2-8.0 µm)(mg $C/m^3/h$)		3.08		2.76	1.21				
Fract. prim. prod. (3.0-8.0 µm)(mg $C/m^3/h$)		1.16		1.08	0.66				
Fract. prim. prod. (>8.0 µm)(mg $C/m^3/h$)		2.94		3.20	1.74				

[a]values determined using the potentiometric method (APHA 1976).

Appendix Table 74. Physical, chemical and biological data from Kennedy Lake, Stn.1, August 26, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	21.5	21.4	21.3	21.2	20.5	15.7	11.3	8.0	7.0
Total dissolved solids (mg/L)					28.0				
pH			8.8			9.0			
Total alkalinity (mg/L $CaCO_3$)			16.07			15.77			
Dissolved inorganic carbon (mg C/L)[a]			4.41			3.81			
Total nitrogen (µg N/L)		247		221	234				145
Total dissolved nitrogen (µg N/L)		139		117	177				170
Nitrate (µg N/L)		1		1	1				78
Total phosphorus (µg P/L)		3		5	6				2
Particulate phosphorus (µg P/L)		5		5	5				1
Soluble reactive silicon (µg Si/L)		220		190	200				570
Bacteria numbers ($x10^6$/mL)		1.35		1.34	1.52				0.67
Light bottle glucose turnover time (h)		85		69	105				111
Dark bottle glucose turnover time (h)		87		61	189				137
Total chlorophyll (µg/L)		7.64		7.08	7.18				0.35
Total prim. prod. (>0.2 µm)(mg C/m^3/h)	11.95	8.88	6.54	3.75	0.48	0.85	0.38	<0.01	
Fract. prim. prod. (0.2-3.0 µm)(mg C/m^3/h)		4.44		1.56	0.00				
Fract. prim. prod. (>3.0 µm)(mg C/m^3/h)		4.44		2.18	0.64				
Fract. prim. prod. (0.2-8.0 µm)(mg C/m^3/h)		5.19		1.95	0.00				
Fract. prim. prod. (3.0-8.0 µm)(mg C/m^3/h)		0.75		0.39	0.05				
Fract. prim. prod. (>8.0 µm)(mg C/m^3/h)		3.69		1.79	0.60				

[a]values determined using the potentiometric method (APHA 1976).

Appendix Table 75. Physical, chemical and biological data from Kennedy Lake, Stn.1, Sept. 30, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	16.7	16.6	16.5	16.4	16.1	14.9	11.9	8.3	6.9
Total dissolved solids (mg/L)					30.1				
pH			9.2			7.5			
Total alkalinity (mg/L $CaCO_3$)			23.03			16.60			
Dissolved inorganic carbon (mg C/L)[a]			5.55			4.31			
Total nitrogen (µg N/L)		332		355	181				145
Total dissolved nitrogen (µg N/L)		244		273	319				218
Nitrate (µg N/L)		1		<1	1				50
Total phosphorus (µg P/L)		6		6	3				2
Particulate phosphorus (µg P/L)		<1		<1	<1				<1
Soluble reactive silicon (µg Si/L)		570		490	490				800
Bacteria numbers (x10^6/mL)		2.01		2.08	2.09				0.64
Light bottle glucose turnover time (h)		15		14	17				176
Dark bottle glucose turnover time (h)		16		15	55				168
Total chlorophyll (µg/L)		15.12		16.33	15.42				0.80
Total prim. prod. (>0.2 µm)(mg C/m^3/h)	9.17	22.27	26.95	22.14	4.82	1.06	0.20	0.00	
Fract. prim. prod. (0.2-3.0 µm)(mg C/m^3/h)		9.48		7.39	0.98				
Fract. prim. prod. (>3.0 µm)(mg C/m^3/h)		12.78		14.75	3.84				
Fract. prim. prod. (0.2-8.0 µm)(mg C/m^3/h)		9.28		10.66	1.54				
Fract. prim. prod. (3.0-8.0 µm)(mg C/m^3/h)		0.00		3.26	0.56				
Fract. prim. prod. (>8.0 µm)(mg C/m^3/h)		12.99		11.48	3.28				

[a]values determined using the potentiometric method (APHA 1976).

Appendix Table 76. Physical, chemical and biological data from Kennedy Lake, Stn.1, Nov. 4, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	9.1	9.1	9.1	9.1	9.1	9.1	9.0	9.0	7.9
Total dissolved solids (mg/L)					28.0				
pH			7.0			6.9			
Total alkalinity (mg/L $CaCO_3$)			12.92			13.73			
Dissolved inorganic carbon (mg C/L)[a]			4.08			4.52			
Total nitrogen (µg N/L)		165		134	130				141
Total dissolved nitrogen (µg N/L)		125		117	128				145
Nitrate (µg N/L)		<1		35	37				39
Total phosphorus (µg P/L)		2		2	3				2
Particulate phosphorus (µg P/L)		2		2	2				2
Soluble reactive silicon (µg Si/L)		580		530	460				510
Bacteria numbers ($x10^6$/mL)		1.38		1.26	1.57				1.30
Total chlorophyll (µg/L)		2.13		2.10	1.69				2.13

[a]values determined using the potentiometric method (APHA 1976).

Appendix Table 77. Physical, chemical and biological data from Kennedy Lake, Stn.2, March 24, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	7.1	7.0	6.9	6.9	6.8	6.6	6.5	6.2	5.6
Total dissolved solids (mg/L)					23.2				
pH		7.1			7.1				
Total alkalinity (mg/L $CaCO_3$)		6.74			6.36				
Dissolved inorganic carbon (mg C/L)[a]		2.04			1.91				
Dissolved inorganic carbon (mg C/L)[b]		3.41						3.01	
Total dissolved nitrogen (µg N/L)		189		188	257				186
Nitrate (µg N/L)		29		31	32				34
Total phosphorus (µg P/L)		2			2				2
Particulate phosphorus (µg P/L)		0.5		1	1				1
Soluble reactive silicon (µg Si/L)		333		379	363				349
Bacteria numbers ($x10^6$/mL)		1.08		1.18	1.17				0.90
Light bottle glucose turnover time (h)		54		110	181				207
Dark bottle glucose turnover time (h)		428		1067	77				87
Total chlorophyll (µg/L)		0.44		0.54	0.26				0.36
Total prim. prod. (>0.2 µm)(mg C/m^3/h)	2.03	1.48	0.86	0.62	0.00	0.07	0.00	0.00	
Fract. prim. prod. (0.2-3.0 µm)(mg C/m^3/h)		1.48		0.62	0.00				
Fract. prim. prod. (>3.0 µm)(mg C/m^3/h)		0.00		0.00	0.47				
Fract. prim. prod. (0.2-8.0 µm)(mg C/m^3/h)		1.33		0.00	0.00				
Fract. prim. prod. (3.0-8.0 µm)(mg C/m^3/h)		0.00		0.00	0.47				
Fract. prim. prod. (>8.0 µm)(mg C/m^3/h)		0.16		1.48	0.00				

[a]values determined using the potentiometric method (APHA 1976).
[b]values determined using the gas chromatograph (Stainton et al. 1977).

Appendix Table 78. Physical, chemical and biological data from Kennedy Lake, Stn.2, April 21, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	9.0	8.0	7.9	7.8	7.6	7.4	7.2	6.9	6.2
Total dissolved solids (mg/L)					19.4				
pH			7.1			7.0			
Total alkalinity (mg/L $CaCO_3$)			8.98			8.98			
Dissolved inorganic carbon (mg C/L)[a]			2.65			2.78			
Total dissolved nitrogen (µg N/L)		390		414	555				555
Nitrate (µg N/L)		30		29	29				32
Total phosphorus (µg P/L)		2		2	1				2
Particulate phosphorus (µg P/L)		1		1	1				<1
Soluble reactive silicon (µg Si/L)		720		700	700				710
Bacteria numbers ($x10^6$/mL)		1.56		1.10	1.21				0.98
Light bottle glucose turnover time (h)		1036		361	1111				1812
Dark bottle glucose turnover time (h)		599		194	522				272
Total chlorophyll (µg/L)		0.96		1.48	1.48				0.20
Total prim. prod. (>0.2 µm)(mg $C/m^3/h$)	0.53	0.42	0.75	0.71	0.71	0.23	0.15	0.09	
Fract. prim. prod. (0.2-3.0 µm)(mg $C/m^3/h$)		0.27		0.36	0.44				
Fract. prim. prod. (>3.0 µm)(mg $C/m^3/h$)		0.15		0.35	0.28				
Fract. prim. prod. (0.2-8.0 µm)(mg $C/m^3/h$)		0.28		0.34	0.46				
Fract. prim. prod. (3.0-8.0 µm)(mg $C/m^3/h$)		0.03		0.00	0.02				
Fract. prim. prod. (>8.0 µm)(mg $C/m^3/h$)		0.12		0.38	0.26				

[a]values determined using the potentiometric method (APHA 1976).

Appendix Table 79. Physical, chemical and biological data from Kennedy Lake, Stn.2, May 28, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	14.6	14.5	14.5	14.4	14.3	14.1	12.0	8.3	6.6
Total dissolved solids (mg/L)					31.7				
pH			7.2			7.1			
Total alkalinity (mg/L $CaCO_3$)			9.61			9.61			
Dissolved inorganic carbon (mg C/L)[a]			2.72			2.74			
Total dissolved nitrogen (µg N/L)		214		176	188				219
Nitrate (µg N/L)		15		15	14				31
Total phosphorus (µg P/L)		1		1	<1				<1
Particulate phosphorus (µg P/L)		1		1	1				1
Soluble reactive silicon (µg Si/L)		690		680	270				700
Bacteria numbers ($x10^6$/mL)		0.48		0.55	0.54				0.86
Light bottle glucose turnover time (h)		334		1212					276
Dark bottle glucose turnover time (h)		327		326	788				167
Total chlorophyll (µg/L)		1.10		1.22	1.04				0.16
Total prim. prod. (>0.2 µm)(mg C/m^3/h)	0.61	0.89	0.72	0.67	0.19	0.25	0.00	0.10	
Fract. prim. prod. (0.2-3.0 µm)(mg C/m^3/h)		0.46		0.47	0.19				
Fract. prim. prod. (>3.0 µm)(mg C/m^3/h)		0.43		0.20	0.00				
Fract. prim. prod. (0.2-8.0 µm)(mg C/m^3/h)		0.87		0.50	0.19				
Fract. prim. prod. (3.0-8.0 µm)(mg C/m^3/h)		0.41		0.03	0.00				
Fract. prim. prod. (>8.0 µm)(mg C/m^3/h)		0.02		0.17	0.00				

[a]values determined using the potentiometric method (APHA 1976).

Appendix Table 80. Physical, chemical and biological data from Kennedy Lake, Stn.2, June 24, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	21.4	21.3	21.2	21.1	19.0	12.6	10.2	7.9	6.9
Total dissolved solids (mg/L)					29.3				
pH			7.2			7.2			
Total alkalinity (mg/L $CaCO_3$)			10.23			10.61			
Dissolved inorganic carbon (mg C/L)[a]			2.82			3.02			
Total dissolved nitrogen (µg N/L)		130		142	95				148
Nitrate (µg N/L)		10		13	10				40
Total phosphorus (µg P/L)		2		2	2				2
Particulate phosphorus (µg P/L)		<1		<1	<1				<1
Soluole reactive silicon (µg Si/L)		620		620	620				660
Bacteria numbers ($x10^6$/mL)		0.68		0.63	0.42				0.68
Light bottle glucose turnover time (h)		261		257	340				754
Dark bottle glucose turnover time (h)		270		257	484				1333
Total chlorophyll (µg/L)		0.68		1.20	1.18				0.26
Total prim. prod. (>0.2 µm)(mg $C/m^3/h$)	0.74	1.04	1.14	1.02	0.52	0.34	0.24	0.05	
Fract. prim. prod. (0.2-3.0 µm)(mg $C/m^3/h$)		0.68		0.42	0.26				
Fract. prim. prod. (>3.0 µm)(mg $C/m^3/h$)		0.37		0.60	0.26				
Fract. prim. prod. (0.2-8.0 µm)(mg $C/m^3/h$)		0.71		0.55	0.21				
Fract. prim. prod. (3.0-8.0 µm)(mg $C/m^3/h$)		0.04		0.13	0.00				
Fract. prim. prod. (>8.0 µm)(mg $C/m^3/h$)		0.33		0.48	0.31				

[a]values determined using the potentiometric method (APHA 1976).

Appendix Table 81. Physical, chemical and biological data from Kennedy Lake, Stn.2, July 29, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	19.7	19.6	19.5	19.4	19.2	17.3	12.7	9.0	7.1
Total dissolved solids (mg/L)					26.0				
pH			7.4			7.1			
Total alkalinity (mg/L $CaCO_3$)			11.23			11.31			
Dissolved inorganic carbon (mg C/L)[a]			2.97			3.18			
Total nitrogen (µg N/L)		126		113	104				136
Total dissolved nitrogen (µg N/L)		164		167	165				171
Nitrate (µg N/L)		1		1	1				36
Total phosphorus (µg P/L)		1		2	5				4
Particulate phosphorus (µg P/L)		<2		<2	<2				<1
Soluble reactive silicon (µg Si/L)		590		590	590				670
Bacteria numbers ($x10^6$/mL)		0.67		0.59	0.66				0.80
Light bottle glucose turnover time (h)		218		213	390				998
Dark bottle glucose turnover time (h)		199		237	244				3260
Total chlorophyll (µg/L)		1.22		1.33	1.02				0.23
Total prim. prod. (>0.2 µm)(mg $C/m^3/h$)	0.92	0.80	0.56	0.62	0.03	0.18	0.10	0.00	
Fract. prim. prod. (0.2-3.0 µm)(mg $C/m^3/h$)		0.00		0.21	0.00				
Fract. prim. prod. (>3.0 µm)(mg $C/m^3/h$)		0.81		0.42	0.13				
Fract. prim. prod. (0.2-8.0 µm)(mg $C/m^3/h$)		0.23		0.33	0.00				
Fract. prim. prod. (3.0-8.0 µm)(mg $C/m^3/h$)		0.25		0.12	<0.01				
Fract. prim. prod. (>8.0 µm)(mg $C/m^3/h$)		0.57		0.30	0.13				

[a]values determined using the potentiometric method (APHA 1976).

Appendix Table 82. Physical, chemical and biological data from Kennedy Lake, Stn.2, August 26, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	20.8	20.7	20.5	20.4	20.1	17.4	13.3	8.7	7.0
Total dissolved solids (mg/L)					24.7				
pH			7.2			7.2			
Total alkalinity (mg/L $CaCO_3$)			11.33			11.28			
Dissolved inorganic carbon (mg C/L)[a]			3.09			3.09			
Total nitrogen (µg N/L)		145		111	155				160
Total dissolved nitrogen (µg N/L)		110		128	110				138
Nitrate (µg N/L)		1		1	1				42
Total phosphorus (µg P/L)		2		1	<1				2
Particulate phosphorus (µg P/L)		<1		<1	<1				<1
Soluble reactive silicon (µg Si/L)		410		440	400				540
Bacteria numbers ($x10^6$/mL)		0.35		0.46	0.58				0.87
Light bottle glucose turnover time (h)		171		319	331				272
Dark bottle glucose turnover time (h)		312		542	372				
Total chlorophyll (µg/L)		1.20		0.88	1.25				0.22
Total prim. prod. (>0.2 µm)(mg C/m^3/h)	0.64	0.49	0.24	0.17	0.03	0.13	0.05	<0.01	
Fract. prim. prod. (0.2-3.0 µm)(mg C/m^3/h)		0.14		0.07	0.00				
Fract. prim. prod. (>3.0 µm)(mg C/m^3/h)		0.35		0.09	0.07				
Fract. prim. prod. (0.2-8.0 µm)(mg C/m^3/h)		0.30		0.09	0.03				
Fract. prim. prod. (3.0-8.0 µm)(mg C/m^3/h)		0.16		0.02	0.07				
Fract. prim. prod. (>8.0 µm)(mg C/m^3/h)		0.19		0.07	0.00				

[a]values determined using the potentiometric method (APHA 1976).

Appendix Table 83. Physical, chemical and biological data from Kennedy Lake, Stn.2, Sept. 30, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	16.9	16.8	16.7	16.6	16.4	16.2	14.2	9.4	7.1
Total dissolved solids (mg/L)					25.8				
pH			7.3			7.1			
Total alkalinity (mg/L $CaCO_3$)			14.80			12.55			
Dissolved inorganic carbon (mg C/L)[a]			3.96			3.59			
Total nitrogen (µg N/L)		222		152	188				333
Total dissolved nitrogen (µg N/L)		212		140	209				175
Nitrate (µg N/L)		1		<1	<1				31
Total phosphorus (µg P/L)		1		2	<1				<1
Particulate phosphorus (µg P/L)		<1		<1	<1				<1
Soluble reactive silicon (µg Si/L)		650		640	630				710
Bacteria numbers ($x10^6$/mL)		0.88		0.80	0.93				0.95
Light bottle glucose turnover time (h)		62		102	127				180
Dark bottle glucose turnover time (h)		79		99	100				156
Total chlorophyll (µg/L)		1.46		1.69	1.51				0.14
Total prim. prod. (>0.2 µm)(mg $C/m^3/h$)	0.52	1.30	1.61	1.74	1.35	0.63	0.26	0.05	
Fract. prim. prod. (0.2-3.0 µm)(mg $C/m^3/h$)		0.59		0.85	0.62				
Fract. prim. prod. (>3.0 µm)(mg $C/m^3/h$)		0.71		0.90	0.73				
Fract. prim. prod. (0.2-8.0 µm)(mg $C/m^3/h$)		0.94		1.15	0.94				
Fract. prim. prod. (3.0-8.0 µm)(mg $C/m^3/h$)		0.35		0.30	0.32				
Fract. prim. prod. (>8.0 µm)(mg $C/m^3/h$)		0.36		0.59	0.41				

[a]values determined using the potentiometric method (APHA 1976).

Appendix Table 84. Physical, chemical and biological data from Kennedy Lake, Stn.2, Nov. 4, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	10.0	10.0	9.9	9.9	9.8	9.8	9.7	9.5	9.0
Total dissolved solids (mg/L)					25.5				
pH			6.7			6.7			
Total alkalinity (mg/L $CaCO_3$)			9.18			8.93			
Dissolved inorganic carbon (mg C/L)[a]			3.46			3.23			
Total nitrogen (µg N/L)		125		111	114				124
Total dissolved nitrogen (µg N/L)		136		122	101				114
Nitrate (µg N/L)		26		28	22				21
Total phosphorus (µg P/L)		2		2	2				2
Particulate phosphorus (µg P/L)		1		1	1				1
Soluble reactive silicon (µg Si/L)		510		490	460				470
Bacteria numbers ($x10^6$/mL)		0.91		1.06	0.95				0.80
Total chlorophyll (µg/L)		0.72		0.63	0.60				0.40

[a]values determined using the potentiometric method (APHA 1976).

Appendix Table 85. Physical, chemical and biological data from Kennedy streams, March 24, 1982.

Depth (m)	A	B
Temperature (°C)	6.2	8.3
Total dissolved nitrogen (µg N/L)	208	250
Nitrate (µg N/L)	41	40
Total phosphorus (µg P/L)	2	2
Particulate phosphorus (µg P/L)	0.5	1
Soluble reactive silicon (µg Si/L)	960	396
Bacteria numbers ($x10^6$/mL)	0.40	1.30

Appendix Table 86. Physical, chemical and biological data from Kennedy streams, April 21, 1982.

Depth (m)	A	B
Temperature (°C)	8.1	11.8
Total dissolved nitrogen (µg N/L)	348	372
Nitrate (µg N/L)	37	33
Total phosphorus (µg P/L)	1	1
Particulate phosphorus (µg P/L)	<1	1
Soluble reactive silicon (µg Si/L)	920	770
Bacteria numbers ($x10^6$/mL)	0.39	1.24

Appendix Table 87. Physical, chemical and biological data from Kennedy streams, May 28, 1982.

Depth (m)	A	B
Temperature (°C)	10.5	15.2
Total dissolved nitrogen (µg N/L)	185	183
Nitrate (µg N/L)	26	10
Total phosphorus (µg P/L)	<1	1
Particulate phosphorus (µg P/L)	0.5	1
Soluble reactive silicon (µg Si/L)	800	630
Bacteria numbers ($x10^6$/mL)	0.27	0.64

Appendix Table 88. Physical, chemical and biological data from Kennedy streams, June 24, 1982.

Depth (m)	A	B
Temperature (°C)	12.6	21.4
Total dissolved nitrogen (µg N/L)	83	92
Nitrate (µg N/L)	11	8
Total phosphorus (µg P/L)	2	1
Particulate phosphorus (µg P/L)	<1	<1
Soluble reactive silicon (µg Si/L)	670	550
Bacteria numbers ($x10^6$/mL)	0.47	0.82

Appendix Table 89. Physical, chemical and biological data from Kennedy streams, July 29, 1982.

Depth (m)	A	B
Temperature (°C)	16.5	19.8
Total nitrogen (µg N/L)	90	102
Total dissolved nitrogen (µg N/L)	106	139
Nitrate (µg N/L)	30	<1
Total phosphorus (µg P/L)	1	2
Particulate phosphorus (µg P/L)	<1	<2
Soluble reactive silicon (µg Si/L)	920	500
Bacteria numbers ($x10^6$/mL)	0.34	0.93

Appendix Table 90. Physical, chemical and biological data from Kennedy streams, August 26, 1982.

Depth (m)	A	B
Temperature (°C)	16.3	22.1
Total nitrogen (µg N/L)	141	136
Total dissolved nitrogen (µg N/L)	136	129
Nitrate (µg N/L)	50	1
Total phosphorus (µg P/L)	18	3
Particulate phosphorus (µg P/L)	<1	<2
Soluble reactive silicon (µg Si/L)	920	340
Bacteria numbers ($x10^6$/mL)	0.46	0.99

Appendix Table 91. Physical, chemical and biological data from Kennedy streams, Sept. 30, 1982.

Depth (m)	A	B
Temperature (°C)	12.5	16.8
Total nitrogen (µg N/L)	172	157
Total dissolved nitrogen (µg N/L)	212	265
Nitrate (µg N/L)	55	2
Total phosphorus (µg P/L)	<1	2
Particulate phosphorus (µg P/L)	<1	1
Soluble reactive silicon (µg Si/L)	1240	610
Bacteria numbers ($x10^6$/mL)	0.53	1.09

Appendix Table 92. Physical, chemical and biological data from Kennedy streams, Nov. 4, 1982.

Depth (m)	A	B
Temperature (°C)	9.2	9.4
Total nitrogen (µg N/L)	99	122
Total dissolved nitrogen (µg N/L)	106	121
Nitrate (µg N/L)	48	26
Total phosphorus (µg P/L)	1	3
Particulate phosphorus (µg P/L)	1	2
Soluble reactive silicon (µg Si/L)	530	520
Bacteria numbers ($x10^6$/mL)	0.56	1.01

Appendix Table 93. Physical, chemical and biological data from Kitlope Lake, August 17, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	12.5	12.2	11.3	6.8
Total dissolved solids (mg/L)			6.0	
Total nitrogen (µg N/L)	140	156	183	293
Total dissolved nitrogen (µg N/L)	127	142	132	150
Nitrate (µg N/L)	4	4	4	20
Total phosphorus (µg P/L)	3	3	3	3
Particulate phosphorus (µg P/L)	3	3	3	<2
Soluble reactive silicon (µg Si/L)	350	330	340	330
Bacteria numbers ($x10^6$/mL)	0.84	0.84	0.78	0.65
Total chlorophyll (µg/L)	1.00	1.22	1.04	0.30

Appendix Table 94. Physical, chemical and biological data from Long Lake, Station 1, March 26, 1982.

Depth (m)	1	3	5	30	
Temperature (°C)	5.3	5.3	5.2	4.5	
Total dissolved solids (mg/L)			35.2		
Total dissolved nitrogen (µg N/L)	189	279	173	206	
Nitrate (µg N/L)	78	77	76	80	
Total phosphorus (µg P/L)	5	5	3	3	
Particulate phosphorus (µg P/L)	1.5	1.5	1.5	1.5	
Soluble reactive silicon (µg Si/L)	647	617	673	680	
Bacteria numbers (x10^6/mL)	0.99	0.75	1.11	0.76	
Total chlorophyll (µg/L)	0.38	0.32	0.56	0.12	

Appendix Table 95. Physical, chemical and biological data from Long Lake, Station 1, May 26, 1982.

Depth (m)	1	3	5	30	
Temperature (°C)	8.4	8.3	8.1	5.9	
Total dissolved solids (mg/L)			16.4		
Total dissolved nitrogen (µg N/L)	315	378	403	429	
Nitrate (µg N/L)	42	42	42	58	
Total phosphorus (µg P/L)	3	3	2	2	
Particulate phosphorus (µg P/L)	2.5	3	3	2	
Soluble reactive silicon (µg Si/L)	960	970	960	860	
Bacteria numbers ($x10^6$/mL)	1.06	1.04	0.92	0.80	
Total chlorophyll (µg/L)	2.32	2.40	2.00	0.42	

Appendix Table 96. Physical, chemical and biological data from Long Lake, Station 1, June 22, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	15.0	13.8	13.1	5.9
Total dissolved solids (mg/L)			11.3	
Total dissolved nitrogen (µg N/L)	178	159	176	265
Nitrate (µg N/L)	19	20	24	72
Total phosphorus (µg P/L)	3	4	3	9
Particulate phosphorus (µg P/L)	2	2	2	1
Soluble reactive silicon (µg Si/L)	610	610	610	930
Bacteria numbers ($x10^6$/mL)	0.90	1.18	1.21	0.67
Total chlorophyll (µg/L)	2.40	2.80	2.80	0.32

Appendix Table 97. Physical, chemical and biological data from Long Lake, Station 1, July 27, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	18.0	15.4	14.3	5.7
Total dissolved solids (mg/L)			10.0	
Total nitrogen (µg N/L)	136	136	119	154
Total dissolved nitrogen (µg N/L)		106	103	171
Nitrate (µg N/L)	2	<1	<1	69
Total phosphorus (µg P/L)	7	4	5	3
Particulate phosphorus (µg P/L)	6	5	6	3
Soluble reactive silicon (µg Si/L)	500	480	430	930
Bacteria numbers ($x10^6$/mL)	1.31	1.21	1.16	0.91
Total chlorophyll (µg/L)	0.97	1.45	2.01	0.54

Appendix Table 98. Physical, chemical and biological data from Long Lake, Station 1, August 24, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	18.8	18.0	17.2	6.3
Total dissolved solids (mg/L)			7.3	
Total nitrogen (µg N/L)	190	138	160	188
Total dissolved nitrogen (µg N/L)	88	94	97	142
Nitrate (µg N/L)	1	2	<1	69
Total phosphorus (µg P/L)	7	6	5	6
Particulate phosphorus (µg P/L)	4	5	4	<2
Soluble reactive silicon (µg Si/L)	360	370	350	600
Bacteria numbers ($x10^6$/mL)	0.99	1.09	1.08	0.69
Total chlorophyll (µg/L)	1.92	2.94	1.51	0.50

Appendix Table 99. Physical, chemical and biological data from Long Lake, Station 1, Sept. 29, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	14.4	14.2	14.1	6.0
Total dissolved solids (mg/L)			6.5	
Total nitrogen (µg N/L)	139	191	175	225
Total dissolved nitrogen (µg N/L)	214	246	219	226
Nitrate (µg N/L)	<1	<1	<1	23
Total phosphorus (µg P/L)	7	6	6	4
Particulate phosphorus (µg P/L)	2	2	2	3
Soluble reactive silicon (µg Si/L)	690	680	680	780
Bacteria numbers ($x10^6$/mL)	1.13	1.28	1.43	0.89
Total chlorophyll (µg/L)	5.80	5.34	6.81	0.39

Appendix Table 100. Physical, chemical and biological data from Long Lake, Station 1, Nov. 2, 1982.

Depth (m)	1	3	5	30	
Temperature (°C)	8.9	8.8	8.7	6.7	
Total dissolved solids (mg/L)			13.3		
Total nitrogen (µg N/L)	149	135	171	158	
Total dissolved nitrogen (µg N/L)	114	122	125	121	
Nitrate (µg N/L)	28	24	25	26	
Total phosphorus (µg P/L)	4	4	4	4	
Particulate phosphorus (µg P/L)	3	3	3	3	
Soluble reactive silicon (µg Si/L)	610	630	640	720	
Bacteria numbers ($x10^6$/mL)	1.55	1.35	1.37	1.60	
Total chlorophyll (µg/L)	3.50	3.68	3.31	1.04	

Appendix Table 101. Physical, chemical and biological data from Long Lake, Stn.2, March 26, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	5.3	5.3	5.3	5.2	5.2	5.1	5.1	5.0	4.9
Total dissolved solids (mg/L)					11.0				
pH		6.5			6.6				
Total alkalinity (mg/L $CaCO_3$)		1.75			3.00				
Dissolved inorganic carbon (mg C/L)[a]		0.83			1.29				
Dissolved inorganic carbon (mg C/L)[b]	1.87		1.92		1.89	2.05	1.78	1.29	
Total dissolved nitrogen (µg N/L)		202		200	217				252
Nitrate (µg N/L)		61		58	62				62
Total phosphorus (µg P/L)				3					
Particulate phosphorus (µg P/L)		1		1	1				1
Soluble reactive silicon (µg Si/L)		647		617	673				680
Bacteria numbers ($x10^6$/mL)		0.87		0.69	1.21				0.82
Light bottle glucose turnover time (h)		128		171	109				638
Dark bottle glucose turnover time (h)		337		336	1005				
Total chlorophyll (µg/L)		0.52		0.36	0.46				0.26
Total prim. prod. (>0.2 µm)(mg C/m^3/h)	1.46	0.94	2.23	0.33	0.16	0.07	0.06	0.00	
Fract. prim. prod. (0.2-3.0 µm)(mg C/m^3/h)		0.00		0.07	0.00				
Fract. prim. prod. (>3.0 µm)(mg C/m^3/h)		0.94		0.27	0.49				
Fract. prim. prod. (0.2-8.0 µm)(mg C/m^3/h)		0.52		0.30	0.03				
Fract. prim. prod. (3.0-8.0 µm)(mg C/m^3/h)		0.52		0.23	0.36				
Fract. prim. prod. (>8.0 µm)(mg C/m^3/h)		0.42		0.03	0.13				

[a]values determined using the potentiometric method (APHA 1976).
[b]values determined using the gas chromatograph (Stainton et al. 1977).

Appendix Table 102. Physical, chemical and biological data from Long Lake, Stn.2, April 27, 1982.

Depth (m)	0	1	2	3	5	7.5	10	15	30
Temperature (°C)	7.4	7.4	7.3	7.3	7.2	7.1	7.0	6.7	5.8
Total dissolved solids (mg/L)					9.1				
pH			6.6			6.6			
Total alkalinity (mg/L $CaCO_3$)			3.49			3.74			
Dissolved inorganic carbon (mg C/L)[a]			1.60			1.58			
Total dissolved nitrogen (µg N/L)		325		239	288				307
Nitrate (µg N/L)		40		41	42				63
Total phosphorus (µg P/L)		3		2	2				2
Particulate phosphorus (µg P/L)		1.5		1.5	1.5				1.5
Soluble reactive silicon (µg Si/L)		720		650	650				680
Bacteria numbers ($x10^6$/mL)		0.90		0.65	0.64				1.09
Total chlorophyll (µg/L)		4.98		4.12	2.48				0.20
Total prim. prod. (>0.2 µm)(mg C/m^3/h)	1.67	1.54	0.00	0.77	0.24	0.36	0.05	0.56	
Fract. prim. prod. (0.2-3.0 µm)(mg C/m^3/h)		0.89		0.73	0.24				
Fract. prim. prod. (>3.0 µm)(mg C/m^3/h)		0.65		0.04	0.00				
Fract. prim. prod. (0.2-8.0 µm)(mg C/m^3/h)		1.06		0.77	0.24				
Fract. prim. prod. (3.0-8.0 µm)(mg C/m^3/h)		0.17		0.04	0.00				
Fract. prim. prod. (>8.0 µm)(mg C/m^3/h)		0.48		0.00	0.00				

[a]values determined using the potentiometric method (APHA 1976).

Appendix Table 103. Physical, chemical and biological data from Long Lake, Station 2, May 26, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	10.0	9.8	9.6	6.0
Total dissolved solids (mg/L)			17.2	
Total dissolved nitrogen (µg N/L)		221	241	200
Nitrate (µg N/L)		38	38	58
Total phosphorus (µg P/L)		3	3	2
Particulate phosphorus (µg P/L)	3	3	3	1
Soluble reactive silicon (µg Si/L)	890	900	900	630
Bacteria numbers ($x10^6$/mL)	0.87	0.62	0.90	0.90
Total chlorophyll (µg/L)	2.09	2.32	2.32	2.16

Appendix Table 104. Physical, chemical and biological data from Long Lake, Station 2, June 22, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	15.2	14.8	14.3	6.3
Total dissolved solids (mg/L)			10.0	
Total dissolved nitrogen (µg N/L)	223	268	244	273
Nitrate (µg N/L)	23	24	25	67
Total phosphorus (µg P/L)	3	3	4	2
Particulate phosphorus (µg P/L)	1	2	2	<1
Soluble reactive silicon (µg Si/L)	710	700	700	850
Bacteria numbers (x10^6/mL)	1.31	0.72	1.17	0.68
Total chlorophyll (µg/L)	4.40	4.00	4.80	0.28

Appendix Table 105. Physical, chemical and biological data from Long Lake, Station 2, July 27, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	18.0	17.0	15.8	6.0
Total dissolved solids (mg/L)			12.0	
Total nitrogen (µg N/L)	155	135	141	111
Total dissolved nitrogen (µg N/L)	121	107	124	205
Nitrate (µg N/L)	10	4	1	63
Total phosphorus (µg P/L)	6	4	4	1
Particulate phosphorus (µg P/L)	7	8	6	3
Soluble reactive silicon (µg Si/L)	530	500	500	850
Bacteria numbers ($x10^6$/mL)	0.66	1.03	0.89	0.70
Total chlorophyll (µg/L)	1.50	1.83	2.17	0.57

Appendix Table 106. Physical, chemical and biological data from Long Lake, Station 2, August 24, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	18.8	17.7	17.1	6.4
Total dissolved solids (mg/L)			10.7	
Total nitrogen (µg N/L)	173	209	148	168
Total dissolved nitrogen (µg N/L)	122	110	109	138
Nitrate (µg N/L)	1	<1	<1	66
Total phosphorus (µg P/L)	4	6	8	4
Particulate phosphorus (µg P/L)	4	5	.4	1
Soluble reactive silicon (µg Si/L)	360	400	330	740
Bacteria numbers ($x10^6$/mL)	1.09	1.32	1.20	0.67
Total chlorophyll (µg/L)	1.92	2.08	3.22	0.59

Appendix Table 107. Physical, chemical and biological data from Long Lake, Station 2, Sept. 29, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	14.3	14.2	14.1	6.4
Total nitrogen (µg N/L)	131	184	160	153
Total dissolved nitrogen (µg N/L)	185	156	231	243
Nitrate (µg N/L)	1	<1	1	45
Total phosphorus (µg P/L)	5	7	5	3
Particulate phosphorus (µg P/L)	1	1	<1	<1
Soluble reactive silicon (µg Si/L)	640	640	640	930
Bacteria numbers ($x10^6$/mL)	1.17	0.94	1.04	0.69
Total chlorophyll (µg/L)	4.32	4.51	4.69	0.28

Appendix Table 108. Physical, chemical and biological data from Long Lake, Station 2, Nov. 2, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	9.8	9.7	9.6	6.0
Total dissolved solids (mg/L)			12.3	
Total nitrogen (µg N/L)	168	161	130	160
Total dissolved nitrogen (µg N/L)	100	128	167	115
Nitrate (µg N/L)	35	12	12	68
Total phosphorus (µg P/L)	3	3	2	1
Particulate phosphorus (µg P/L)	2	2	2	1
Soluble reactive silicon (µg Si/L)	600	590	530	680
Bacteria numbers ($x10^6$/mL)	1.14	1.46	1.71	0.73
Total chlorophyll (µg/L)	3.31	3.22	3.31	0.34

Appendix Table 109. Physical, chemical and biological data from Long Lake, Station 3, March 26, 1982.

Depth (m)	1	3	5	30	
Temperature (°C)	5.8	5.4	5.0	4.7	
Total dissolved nitrogen (µg N/L)	186	156	200	416	
Nitrate (µg N/L)	59	61	60	60	
Particulate phosphorus (µg P/L)	<1	<1	1	<1	
Soluble reactive silicon (µg Si/L)	663	670	660	643	
Bacteria numbers ($x10^6$/mL)	0.84	0.73	0.99	0.74	
Total chlorophyll (µg/L)	0.30	0.32	0.34	0.26	

Appendix Table 110. Physical, chemical and biological data from Long Lake, Station 3, April 27, 1982.

Depth (m)	1	3	5	30	
Temperature (°C)	7.8	7.7	7.5	5.7	
Total dissolved solids (mg/L)			15.3		
Total dissolved nitrogen (µg N/L)	256	237	242	267	
Nitrate (µg N/L)	48	48	60	52	
Total phosphorus (µg P/L)	2	2	1	6	
Particulate phosphorus (µg P/L)	1.5	1.5	1.0	1.0	
Soluble reactive silicon (µg Si/L)	680	680	680	690	
Bacteria numbers ($x10^6$/mL)	0.56	0.73	0.86	0.79	
Total chlorophyll (µg/L)	4.42	4.32	2.48	0.27	

Appendix Table 111. Physical, chemical and biological data from Long streams, March 26, 1982.

Depth (m)	A	B	C
Temperature (°C)	3.3	3.5	5.3
Total dissolved nitrogen (µg N/L)	297	243	453
Nitrate (µg N/L)	62	82	60
Total phosphorus (µg P/L)		1	
Particulate phosphorus (µg P/L)	3	1	1
Soluble reactive silicon (µg Si/L)	1690	1390	1125
Bacteria numbers ($x10^6$/mL)	0.48	0.31	0.84

Appendix Table 112. Physical, chemical and biological data from Long stream C, April 27, 1982.

Depth (m)	C
Temperature (°C)	7.5
Total dissolved nitrogen (µg N/L)	299
Nitrate (µg N/L)	52
Total phosphorus (µg P/L)	2
Particulate phosphorus (µg P/L)	<0.5
Soluble reactive silicon (µg Si/L)	690
Bacteria numbers ($x10^6$/mL)	0.31

Appendix Table 113. Physical, chemical and biological data from Long streams, May 26, 1982.

Depth (m)	A	B	C
Temperature (°C)	3.9	3.9	9.7
Total dissolved nitrogen (µg N/L)	200	239	208
Nitrate (µg N/L)	43	44	37
Total phosphorus (µg P/L)		1	2
Particulate phosphorus (µg P/L)	2.5	1	2
Soluble reactive silicon (µg Si/L)	810	750	870
Bacteria numbers ($x10^6$/mL)	0.37	0.20	0.80

Appendix Table 114. Physical, chemical and biological data from Long streams, June 22, 1982.

Depth (m)	A	B	C
Temperature (°C)	7.0	8.2	13.6
Total dissolved nitrogen (µg N/L)	194	256	343
Nitrate (µg N/L)	25	16	38
Total phosphorus (µg P/L)	5	2	3
Particulate phosphorus (µg P/L)	2	<1	1
Soluble reactive silicon (µg Si/L)	410	420	780
Bacteria numbers ($x10^6$/mL)	0.30	0.31	0.77

Appendix Table 115. Physical, chemical and biological data from Long streams, July 27, 1982.

Depth (m)	A	B	C
Temperature (°C)	11.2	13.2	18.9
Total nitrogen (µg N/L)	85	119	180
Total dissolved nitrogen (µg N/L)	94	113	169
Nitrate (µg N/L)	6	17	<1
Total phosphorus (µg P/L)	6	6	3
Particulate phosphorus (µg P/L)	6	<1	2
Soluble reactive silicon (µg Si/L)	320	510	540
Bacteria numbers ($x10^6$/mL)	0.30	0.29	0.79

Appendix Table 116. Physical, chemical and biological data from Long streams, August 24, 1982.

Depth (m)	A	B	C
Temperature (°C)	12.5	14.4	17.8
Total nitrogen (µg N/L)	93	150	178
Total dissolved nitrogen (µg N/L)	106	114	110
Nitrate (µg N/L)	8	58	3
Total phosphorus (µg P/L)	6	2	4
Particulate phosphorus (µg P/L)	4	<0.5	<2
Soluble reactive silicon (µg Si/L)	260	810	390
Bacteria numbers ($x10^6$/mL)	0.20	0.17	1.02

Appendix Table 117. Physical, chemical and biological data from Long streams, Sept. 29, 1982.

Depth (m)	A	B	C
Temperature (°C)	8.0	8.8	13.7
Total nitrogen (µg N/L)	244	175	653
Total dissolved nitrogen (µg N/L)	361	286	142
Nitrate (µg N/L)	15	109	<1
Total phosphorus (µg P/L)	11	43	3
Particulate phosphorus (µg P/L)	4	3	<1
Soluble reactive silicon (µg Si/L)	1000	1880	650
Bacteria numbers ($x10^6$/mL)	0.29	0.14	1.05

Appendix Table 118. Physical, chemical and biological data from Long streams, Nov. 2, 1982.

Depth (m)	A	B	C
Temperature (°C)	4.0	6.2	10.0
Total nitrogen (µg N/L)	172	200	163
Total dissolved nitrogen (µg N/L)	146	151	121
Nitrate (µg N/L)	52	49	8
Total phosphorus (µg P/L)	5	8	3
Particulate phosphorus (µg P/L)	1	3	2
Soluble reactive silicon (µg Si/L)	1490	890	590
Bacteria numbers ($x10^6$/mL)	0.21	0.22	1.16

Appendix Table 119. Physical, chemical and biological data from Lowe Lake, August 17, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	18.8	18.5	18.2	5.9
Total dissolved solids (mg/L)			6.0	
Total nitrogen (µg N/L)	144	117	127	164
Total dissolved nitrogen (µg N/L)	136	158	142	149
Nitrate (µg N/L)	2	2	<1	22
Total phosphorus (µg P/L)	2	2		1
Particulate phosphorus (µg P/L)	2	<2	<2	<2
Soluble reactive silicon (µg Si/L)	260	240	230	250
Bacteria numbers (x10^6/mL)	0.68	0.96	0.97	0.67
Total chlorophyll (µg/L)	1.04	0.92	0.96	0.34

Appendix Table 120. Physical, chemical and biological data from Nimpkish Lake, Stn.1, March 27, 1982.

Depth (m)	0	1	2	3	5	7.5	10	20	30
Temperature (°C)	5.8	5.8	5.8	5.7	5.7	5.6	5.6	5.3	5.0
Total dissolved solids (mg/L)					24.0				
pH		7.0			7.0				
Total alkalinity (mg/L $CaCO_3$)		8.36			9.48				
Dissolved inorganic carbon (mg C/L)[a]		2.55			2.90				
Dissolved inorganic carbon (mg C/L)[b]	3.25	3.12	3.37	3.08	3.34	2.73	3.02		
Total dissolved nitrogen (µg N/L)		402		195	217				224
Nitrate (µg N/L)		59		58	56				59
Total phosphorus (µg P/L)		2		2	2				1
Particulate phosphorus (µg P/L)				0.5	0.5				1
Soluble reactive silicon (µg Si/L)		1832		1832	1829				1822
Bacteria numbers ($x10^6$/mL)		0.67		0.85					0.46
Light bottle glucose turnover time (h)		254		359	245				525
Dark bottle glucose turnover time (h)		533		303	391				1379
Total chlorophyll (µg/L)		0.12		0.12	0.12				0.10
Total prim. prod. (>0.2 µm)(mg C/m^3/h)	0.32	0.09		0.13	0.12	0.00	0.00	0.00	
Fract. prim. prod. (0.2-3.0 µm)(mg C/m^3/h)		0.02		0.06	0.00				
Fract. prim. prod. (>3.0 µm)(mg C/m^3/h)		0.07		0.06	0.00				
Fract. prim. prod. (0.2-8.0 µm)(mg C/m^3/h)		0.09		0.08	0.00				
Fract. prim. prod. (3.0-8.0 µm)(mg C/m^3/h)		0.07		0.02	0.00				
Fract. prim. prod. (>8.0 µm)(mg C/m^3/h)		0.00		0.04	0.00				

[a]values determined using the potentiometric method (APHA 1976).
[b]values determined using the gas chromatograph (Stainton et al. 1977).

Appendix Table 121. Physical, chemical and biological data from Nimpkish Lake, Stn.1, April 28, 1982.

Depth (m)	0	1	2	3	5	7.5	10	20	30
Temperature (°C)	7.0	7.0	7.0	7.0	6.9	6.9	6.8	6.7	6.5
Total dissolved solids (mg/L)					22.5				
pH			6.8			6.9			
Total alkalinity (mg/L $CaCO_3$)			11.23			11.98			
Dissolved inorganic carbon (mg C/L)[a]			3.84			3.86			
Dissolved inorganic carbon (mg C/L)[b]	2.65	2.96	3.16	2.48	3.03	3.13	2.55	2.51	
Total dissolved nitrogen (µg N/L)		269		282	232				370
Nitrate (µg N/L)		50		49	48				50
Total phosphorus (µg P/L)		1							1
Particulate phosphorus (µg P/L)		<0.5		<0.5	<0.5				<0.5
Soluble reactive silicon (µg Si/L)		1830		1810	1840				1820
Bacteria numbers ($x10^6$/mL)		0.69		0.72	1.04				0.72
Light bottle glucose turnover time (h)		292		514	443				518
Dark bottle glucose turnover time (h)		9191		561	309				244
Total chlorophyll (µg/L)		0.23		0.23	0.20				0.14
Total prim. prod. (>0.2 µm)(mg C/m^3/h)	0.15	0.14	0.10	0.14	0.08	0.04	0.00	0.00	
Fract. prim. prod. (0.2-3.0 µm)(mg C/m^3/h)		0.05		0.00	0.02				
Fract. prim. prod. (>3.0 µm)(mg C/m^3/h)		0.09		0.28	0.06				
Fract. prim. prod. (0.2-8.0 µm)(mg C/m^3/h)		0.10		0.08	0.01				
Fract. prim. prod. (3.0-8.0 µm)(mg C/m^3/h)		0.05		0.22	0.00				
Fract. prim. prod. (>8.0 µm)(mg C/m^3/h)		0.04		0.06	0.07				

[a]values determined using the potentiometric method (APHA 1976).
[b]values determined using the gas chromatograph (Stainton et al. 1977).

Appendix Table 122. Physical, chemical and biological data from Nimpkish Lake, Station 1, May 27, 1982.

Depth (m)	1	3	5	30	
Temperature (°C)	8.5	8.5	8.4	8.0	
Total dissolved solids (mg/L)			21.1		
Total dissolved nitrogen (µg N/L)	327	190	274	200	
Nitrate (µg N/L)	53	52	53	53	
Total phosphorus (µg P/L)	2	1	2	1	
Particulate phosphorus (µg P/L)	1	1	1	1	
Soluble reactive silicon (µg Si/L)	1750	1780	1770	1770	
Bacteria numbers ($x10^6$/mL)	0.76	0.60	0.88	0.68	
Total chlorophyll (µg/L)	0.66	0.56	0.42	0.30	

Appendix Table 123. Physical, chemical and biological data from Nimpkish Lake, Station 1, June 22, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	13.9	13.8	13.7	8.9
Total dissolved solids (mg/L)			18.7	
Total dissolved nitrogen (µg N/L)	160	204	168	216
Nitrate (µg N/L)	29	30	31	43
Total phosphorus (µg P/L)	3	3	2	1
Particulate phosphorus (µg P/L)	<1	1	2	<1
Soluble reactive silicon (µg Si/L)	1560	1550	1560	1670
Bacteria numbers ($x10^6$/mL)	0.93	0.69	0.86	0.84
Total chlorophyll (µg/L)	1.20	1.54	1.36	0.32

Appendix Table 124. Physical, chemical and biological data from Nimpkish Lake, Station 1, July 27, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	17.1	17.0	16.8	9.8
Total dissolved solids (mg/L)			30.0	
Total nitrogen (µg N/L)	148	101	124	154
Total dissolved nitrogen (µg N/L)	155	146	162	193
Nitrate (µg N/L)	27	27	27	44
Total phosphorus (µg P/L)	9	4	6	3
Particulate phosphorus (µg P/L)	3	4	5	<2
Soluble reactive silicon (µg Si/L)	1550	1540	1550	1660
Bacteria numbers ($x10^6$/mL)	0.99	0.57	0.62	0.61
Total chlorophyll (µg/L)	1.18	1.41	1.58	0.36

Appendix Table 125. Physical, chemical and biological data from Nimpkish Lake, Station 1, August 24, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	17.3	17.2	17.1	9.2
Total dissolved solids (mg/L)			24.0	
Total nitrogen (µg N/L)	173	172	165	148
Total dissolved nitrogen (µg N/L)	163	145	161	156
Nitrate (µg N/L)	25	24	25	51
Total phosphorus (µg P/L)	3	2	2	2
Particulate phosphorus (µg P/L)	2	<2	<2	<1
Soluble reactive silicon (µg Si/L)	1360	1310	1390	1380
Bacteria numbers (x10^6/mL)	1.21	1.15	1.16	0.54
Total chlorophyll (µg/L)	3.13	3.13	3.13	0.30

Appendix Table 126. Physical, chemical and biological data from Nimpkish Lake, Station 1, Sept. 29, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	15.1	15.1	15.1	9.6
Total dissolved solids (mg/L)			26.3	
Total nitrogen (µg N/L)	210	181	162	186
Total dissolved nitrogen (µg N/L)	176	165	214	212
Nitrate (µg N/L)	21	21	21	40
Total phosphorus (µg P/L)	2	2	2	<1
Particulate phosphorus (µg P/L)	1	1	1	<1
Soluble reactive silicon (µg Si/L)	1620	1620	1610	1750
Bacteria numbers ($x10^6$/mL)	1.56	1.35	1.26	0.80
Total chlorophyll (µg/L)	2.18	2.10	2.10	0.24

Appendix Table 127. Physical, chemical and biological data from Nimpkish Lake, Station 1, Nov. 2, 1982.

Depth (m)	1	3	5	30	
Temperature (°C)	10.3	10.3	10.3	10.1	
Total dissolved solids (mg/L)			23.3		
Total nitrogen (µg N/L)	144	145	149	148	
Total dissolved nitrogen (µg N/L)	124	111	104	154	
Nitrate (µg N/L)	49	46	48	47	
Total phosphorus (µg P/L)	4	3	3	3	
Particulate phosphorus (µg P/L)	2	2	2	2	
Soluble reactive silicon (µg Si/L)	1650	1630	1670	1610	
Bacteria numbers (x10^6/mL)	1.45	1.66	1.64	1.21	
Total chlorophyll (µg/L)	1.14	1.09	0.91	0.74	

Appendix Table 128. Physical, chemical and biological data from Nimpkish Lake, Station 2, March 27, 1982.

Depth (m)	1	3	5	30	
Temperature (°C)	5.8	5.7	5.7	5.6	
Total dissolved nitrogen (µg N/L)	284	234	330	208	
Nitrate (µg N/L)	59	61	60	60	
Total phosphorus (µg P/L)	2	1	2	1	
Particulate phosphorus (µg P/L)	0.5	0.5	0.5	0.5	
Soluble reactive silicon (µg Si/L)	1849	1858	1829	1832	
Bacteria numbers ($x10^6$/mL)	0.80	0.78	0.68	0.94	
Total chlorophyll (µg/L)	0.12	0.18	0.12	0.12	

Appendix Table 129. Physical, chemical and biological data from Nimpkish Lake, Station 2, April 28, 1982.

Depth (m)	1	3	5	30	
Temperature (°C)	7.4	7.1	6.9	5.9	
Total dissolved solids (mg/L)			30.8		
Total dissolved nitrogen (µg N/L)	300	409	386	513	
Nitrate (µg N/L)	50	49	51	52	
Total phosphorus (µg P/L)	<1	1	<1	<1	
Particulate phosphorus (µg P/L)	<0.5	0.5	0.5	0.5	
Soluble reactive silicon (µg Si/L)	1750	1840	1820	1820	
Bacteria numbers ($x10^6$/mL)	0.79	0.59		0.97	
Total chlorophyll (µg/L)	0.20	0.19	0.16	0.09	

Appendix Table 130. Physical, chemical and biological data from Nimpkish Lake, Station 2, May 27, 1982.

Depth (m)	1	3	5	30	
Temperature (°C)	8.7	8.6	8.6	8.2	
Total dissolved solids (mg/L)			32.0		
Total dissolved nitrogen (µg N/L)	193	256	205	213	
Nitrate (µg N/L)	46	46	46	49	
Total phosphorus (µg P/L)	<1	1	1	1	
Particulate phosphorus (µg P/L)	1	1	1	1	
Soluble reactive silicon (µg Si/L)	1470	1740	1480	1760	
Bacteria numbers (x10^6/mL)	0.60	0.80	0.64	0.67	
Total chlorophyll (µg/L)	0.46	0.48	0.50	0.26	

Appendix Table 131. Physical, chemical and biological data from Nimpkish Lake, Station 2, June 22, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	12.9	12.8	12.6	9.0
Total dissolved solids (mg/L)			25.3	
Total dissolved nitrogen (µg N/L)	225	183	168	181
Nitrate (µg N/L)	40	37	38	46
Total phosphorus (µg P/L)	2	2	2	1
Particulate phosphorus (µg P/L)	<1	<1	<1	<1
Soluble reactive silicon (µg Si/L)	1650	1650	1650	1700
Bacteria numbers ($x10^6$/mL)	0.70	0.95	0.72	0.56
Total chlorophyll (µg/L)	1.66	1.30	1.14	0.28

Appendix Table 132. Physical, chemical and biological data from Nimpkish Lake, Station 2, July 27, 1982.

Depth (m)	1	3	5	15	
Temperature (°C)	16.7	16.4	16.0	14.9	
Total dissolved solids (mg/L)			28.7		
Total nitrogen (µg N/L)	118	136	131	173	
Total dissolved nitrogen (µg N/L)	187	167	158	156	
Nitrate (µg N/L)	27	27	26	29	
Total phosphorus (µg P/L)	2	2	2		
Particulate phosphorus (µg P/L)	<2	2	3	3	
Soluble reactive silicon (µg Si/L)	1570	1560	1590	1570	
Bacteria numbers ($x10^6$/mL)	0.76	0.99	0.91	0.75	
Total chlorophyll (µg/L)	1.32	1.19	1.56	1.05	

Appendix Table 133. Physical, chemical and biological data from Nimpkish Lake, Station 2, August 24, 1982.

Depth (m)	1	3	5	30	
Temperature (°C)	17.0	16.9	16.8	14.0	
Total dissolved solids (mg/L)			23.3		
Total nitrogen (µg N/L)	148	150	174	163	
Total dissolved nitrogen (µg N/L)	129	121	134	128	
Nitrate (µg N/L)	25	25	25	34	
Total phosphorus (µg P/L)	1	2	2	1	
Particulate phosphorus (µg P/L)	1	1	1	<1	
Soluble reactive silicon (µg Si/L)	1100	1410	1290	1520	
Bacteria numbers ($x10^6$/mL)	1.02	0.52	0.90	0.97	
Total chlorophyll (µg/L)	2.03	2.11	1.82	0.65	

Appendix Table 134. Physical, chemical and biological data from Nimpkish Lake, Station 2, Sept. 29, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	14.3	14.3	14.2	13.1
Total dissolved solids (mg/L)			19.8	
Total nitrogen (µg N/L)	174	141	186	152
Total dissolved nitrogen (µg N/L)	178	175	166	219
Nitrate (µg N/L)	23	22	22	29
Total phosphorus (µg P/L)	1	2	2	3
Particulate phosphorus (µg P/L)	<1	<1	<1	<1
Soluble reactive silicon (µg Si/L)	1640	1630	1640	1680
Bacteria numbers (x10^6/mL)	1.27	1.20	1.32	0.84
Total chlorophyll (µg/L)	1.66	1.82	1.72	0.34

Appendix Table 135. Physical, chemical and biological data from Nimpkish Lake, Station 2, Nov. 2, 1982.

Depth (m)	1	3	5	30	
Temperature (°C)	11.0	10.9	10.8	10.1	
Total dissolved solids (mg/L)			27.2		
Total nitrogen (µg N/L)	148	146	144	172	
Total dissolved nitrogen (µg N/L)	197	132	157	313	
Nitrate (µg N/L)	47	47	47	53	
Total phosphorus (µg P/L)	3	3	2	1	
Particulate phosphorus (µg P/L)	2	2	2	2	
Soluble reactive silicon (µg Si/L)	1620	1640	1640	1700	
Bacteria numbers ($x10^6$/mL)	1.37	1.50	1.62	1.22	
Total chlorophyll (µg/L)	1.61	1.77	1.38	0.55	

Appendix Table 136. Physical, chemical and biological data from Simpson Lake, May 19, 1982.

Depth (m)	1	3	5	30	
Temperature (°C)	4.0	4.0	4.0	3.9	
Total dissolved solids (mg/L)			14.7		
Total dissolved nitrogen (µg N/L)	348	178	256	167	
Nitrate (µg N/L)	25	25	26	26	
Total phosphorus (µg P/L)	1	1	1	<1	
Soluble reactive silicon (µg Si/L)	490	490	490	500	
Bacteria numbers ($x10^6$/mL)	0.55	1.02	0.84	1.00	
Total chlorophyll (µg/L)	0.17	0.18	0.19	0.15	

Appendix Table 137. Physical, chemical and biological data from Simpson Lake, June 16, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	14.1	11.3	10.6	5.2
Total dissolved nitrogen (µg N/L)	166	120	129	121
Nitrate (µg N/L)	12	12	14	25
Total phosphorus (µg P/L)	2	2	5	5
Soluble reactive silicon (µg Si/L)	396	407	407	446
Bacteria numbers ($x10^6$/mL)	0.54	0.60	0.62	1.05
Total chlorophyll (µg/L)	0.72	1.36	1.90	0.20

Appendix Table 138. Physical, chemical and biological data from Simpson Lake, July 15, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	13.5	13.2	12.4	4.7
Total dissolved solids (mg/L)			14.0	
Total nitrogen (µg N/L)	144	151	148	127
Total dissolved nitrogen (µg N/L)	103	90	98	109
Nitrate (µg N/L)	6	7	7	24
Total phosphorus (µg P/L)	1	2	2	2
Soluble reactive silicon (µg Si/L)	420	430	434	480
Bacteria numbers ($x10^6$/mL)	1.03	0.85	1.13	0.68
Total chlorophyll (µg/L)	0.87	0.84	0.68	0.24

Appendix Table 139. Physical, chemical and biological data from Simpson Lake, August 17, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	17.7	17.4	17.2	5.6
Total dissolved solids (mg/L)			13.3	
Total nitrogen (µg N/L)	110	158	118	154
Total dissolved nitrogen (µg N/L)	112	115	104	145
Nitrate (µg N/L)	<1	<1	<1	24
Total phosphorus (µg P/L)	1	1	<1	<1
Soluble reactive silicon (µg Si/L)	300	250	240	300
Bacteria numbers ($x10^6$/mL)	0.71	0.62	0.91	0.87
Total chlorophyll (µg/L)	0.88	1.18	1.20	0.26

Appendix Table 140. Physical, chemical and biological data from Simpson Lake, Sept. 14, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	16.7	16.6	16.4	6.0
Total dissolved solids (mg/L)			21.0	
Total nitrogen (µg N/L)	216	233	236	373
Total dissolved nitrogen (µg N/L)	147	150	151	173
Nitrate (µg N/L)	2	2	2	25
Total phosphorus (µg P/L)	<1	<1	<1	2
Soluble reactive silicon (µg Si/L)	430	400	390	360
Bacteria numbers ($x10^6$/mL)	1.02	1.21	1.65	0.15
Total chlorophyll (µg/L)	1.34	1.70	1.60	0.28

Appendix Table 141. Physical, chemical and biological data from Simpson Lake, Oct. 14, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	12.9	12.8	12.7	5.9
Total dissolved solids (mg/L)			15.7	
Total nitrogen (µg N/L)	145	132	132	160
Total dissolved nitrogen (µg N/L)	135	105	149	129
Nitrate (µg N/L)	5	5	5	28
Total phosphorus (µg P/L)	1	2		1
Soluble reactive silicon (µg Si/L)	550	520	540	450
Bacteria numbers ($x10^6$/mL)	1.98	1.67	1.14	0.79
Total chlorophyll (µg/L)	1.46	1.53	1.46	0.30

Appendix Table 142. Physical, chemical and biological data from Sproat Lake, Stn.1, March 23, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	6.6	5.9	5.8	5.0	4.9
Total dissolved solids (mg/L)			34.7		
Total dissolved nitrogen (µg N/L)	118	136	151	189	134
Nitrate (µg N/L)	35	35	37	39	43
Total phosphorus (µg P/L)	1	1	1	2	<1
Particulate phosphorus (µg P/L)	0.5	1	1	1	0.5
Soluble reactive silicon (µg Si/L)	1049	1100		1080	1110
Bacteria numbers ($x10^6$/mL)	0.91	0.76	0.86	0.98	0.67
Total chlorophyll (µg/L)	0.16	0.30	0.64	0.40	0.22

Appendix Table 143. Physical, chemical and biological data from Sproat Lake, Stn.1, April 20, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	7.5	7.2	7.0	5.9	5.3
Total dissolved solids (mg/L)			37.7		
Total dissolved nitrogen (µg N/L)	606	303	375	504	570
Nitrate (µg N/L)	22	22	24	28	35
Total phosphorus (µg P/L)	<1	1	1	<1	2
Particulate phosphorus (µg P/L)	<0.5	<0.5	<0.5	<0.5	<0.5
Soluble reactive silicon (µg Si/L)	1210	1200	1220	1220	1220
Bacteria numbers ($x10^6$/mL)	0.56	0.45	0.66	0.58	0.45
Total chlorophyll (µg/L)	1.11	1.16	0.76	1.22	1.14

Appendix Table 144. Physical, chemical and biological data from Sproat Lake, Stn.1, May 29, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	15.8	15.0	13.6	6.6	5.6
Total dissolved solids (mg/L)			34.7		
Total dissolved nitrogen (µg N/L)	195	190	144	181	304
Nitrate (µg N/L)	4	5	6	21	37
Total phosphor s (µg P/L)	<1	<1	<1	3	<1
Particulate phosphorus (µg P/L)	0.5	1	1	1.5	1
Soluble reactive silicon (µg Si/L)	1100	1090	1110	1180	1240
Bacteria numbers (x10^6/mL)	0.47	0.40	0.62	0.70	0.56
Total chlorophyll (µg/L)	0.60	0.60	0.62	3.60	0.40

Appendix Table 145. Physical, chemical and biological data from Sproat Lake, Stn.1, June 25, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	21.6	21.2	18.6	6.5	5.5
Total dissolved solids (mg/L)			41.3		
Total dissolved nitrogen (µg N/L)	93	82	138	99	112
Nitrate (µg N/L)	2	<1	<1	14	22
Total phosphorus (µg P/L)	<1	<1	<1	2	<1
Particulate phosphorus (µg P/L)	<1	<1	<1	<1	<1
Soluble reactive silicon (µg Si/L)	1000	980	930	1090	1380
Bacteria numbers ($x10^6$/mL)	0.57	0.74	0.59	0.78	0.46
Total chlorophyll (µg/L)	0.28	0.24	0.34	3.20	1.18

Appendix Table 146. Physical, chemical and biological data from Sproat Lake, Stn.1, July 30, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	20.7	20.4	20.2	6.1	5.4
Total dissolved solids (mg/L)			36.6		
Total nitrogen (µg N/L)	92	90	87	97	90
Total dissolved nitrogen (µg N/L)	104	118	106	104	161
Nitrate (µg N/L)	<1	<1	<1	8	41
Total phosphorus (µg P/L)	<1	1	4	1	2
Particulate phosphorus (µg P/L)	<1	<1	<0.5	<2	<2
Soluble reactive silicon (µg Si/L)	910	930	920	1010	1190
Bacteria numbers ($x10^6$/mL)	0.44	0.55	0.41	0.76	0.75
Total chlorophyll (µg/L)	0.35	0.27	0.33	3.72	1.02

Appendix Table 147. Physical, chemical and biological data from Sproat Lake, Stn.1, August 27, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	20.4	20.3	20.2	6.9	5.5
Total dissolved solids (mg/L)			35.3		
Total nitrogen (µg N/L)	72	116	107	93	141
Total dissolved nitrogen (µg N/L)	126	95	98	69	144
Nitrate (µg N/L)	<1	<1	<1	<1	44
Total phosphorus (µg P/L)	1	2	1	2	2
Particulate phosphorus (µg P/L)	<0.5	<0.5	<0.5	<1	<1
Soluble reactive silicon (µg Si/L)	720	740	710	790	1130
Bacteria numbers ($x10^6$/mL)	0.36	0.22	0.21	0.35	0.70
Total chlorophyll (µg/L)	0.36	0.41	0.41	2.05	1.43

Appendix Table 148. Physical, chemical and biological data from Sproat Lake, Stn.1, October 1, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	17.2	17.1	17.1	7.0	5.6
Total dissolved solids (mg/L)			38.7		
Total nitrogen (µg N/L)	96	136	97	86	129
Total dissolved nitrogen (µg N/L)	120	104	125	134	126
Nitrate (µg N/L)	1	1	<1	1	28
Total phosphorus (µg P/L)	<1	<1	2	2	<1
Particulate phosphorus (µg P/L)	<1	<1	<1	<1	<1
Soluble reactive silicon (µg Si/L)	1010	1120	990	1050	1240
Bacteria numbers (x10^6/mL)	0.61	0.49	0.47	0.74	0.63
Total chlorophyll (µg/L)	0.47	0.47	0.47	1.20	3.68

Appendix Table 149. Physical, chemical and biological data from Sproat Lake, Stn.1, Nov. 5, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	10.7	10.6	10.5	9.0	6.6
Total dissolved solids (mg/L)			30.4		
Total nitrogen (µg N/L)	88	115	107	177	122
Total dissolved nitrogen (µg N/L)	118	113	114	137	103
Nitrate (µg N/L)	4	4	4	15	15
Total phosphorus (µg P/L)	1	2	1	2	2
Particulate phosphorus (µg P/L)	1	1	1	2	1
Soluble reactive silicon (µg Si/L)	850	830	970	910	1010
Bacteria numbers ($x10^6$/mL)	0.73	0.88	0.85	0.99	0.61
Total chlorophyll (µg/L)	1.12	1.12	1.12	0.60	1.25

Appendix Table 150. Physical, chemical and biological data from Sproat Lake, Stn.3, March 23, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	7.0	6.7	6.5	5.2	5.0
Total dissolved solids (mg/L)			41.5		
Total dissolved nitrogen (µg N/L)	170	170	390	247	266
Nitrate (µg N/L)	27	26	27	36	43
Total phosphorus (µg P/L)	1	1	2	2	1
Particulate phosphorus (µg P/L)	1	1	1	1	0.5
Soluble reactive silicon (µg Si/L)	1238	1248	1234	1261	1261
Bacteria numbers ($x10^6$/mL)	0.64	0.59	0.75	1.15	1.01
Total chlorophyll (µg/L)	0.62	1.16	1.12	1.04	0.36

Appendix Table 151. Physical, chemical and biological data from Sproat Lake, Stn.3, April 20, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	8.4	8.1	7.8	5.8	5.3
Total dissolved solids (mg/L)			32.3		
Total dissolved nitrogen (µg N/L)	240	333	339	414	378
Nitrate (µg N/L)	13	12	12	28	17
Total phosphorus (µg P/L)	1	1	3	3	3
Particulate phosphorus (µg P/L)	0.5	0.5	0.5	0.5	0.5
Soluble reactive silicon (µg Si/L)	1220	1230	1240	1340	1270
Bacteria numbers ($x10^6$/mL)	0.72	0.69	0.62	0.69	0.66
Total chlorophyll (µg/L)	0.96	1.34	1.70	6.20	1.44

Appendix Table 152. Physical, chemical and biological data from Sproat Lake, Stn.3, May 29, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	16.0	15.4	13.8	6.2	5.6
Total dissolved solids (mg/L)			36.7		
Total dissolved nitrogen (µg N/L)	130	162	115	147	167
Nitrate (µg N/L)	1	1	1	1	21
Total phosphorus (µg P/L)	<1	<1	<1	1	<1
Particulate phosphorus (µg P/L)		1	1	1	1
Soluble reactive silicon (µg Si/L)	1100	1100	1090	1090	1240
Bacteria numbers (x10^6/mL)	0.56	0.73	0.61	0.78	0.62
Total chlorophyll (µg/L)	0.48	0.50	0.58	0.58	2.00

Appendix Table 153. Physical, chemical and biological data from Sproat Lake, Stn.3, June 25, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	21.5	21.2	18.1	6.9	5.7
Total dissolved solids (mg/L)			39.3		
Total dissolved nitrogen (µg N/L)	105	89	89	85	111
Nitrate (µg N/L)	3	<1	<1	7	32
Total phosphorus (µg P/L)	<1	<1	3	2	2
Particulate phosphorus (µg P/L)	<1	<1	<1	<1	<1
Soluble reactive silicon (µg Si/L)	1110	1090	1070	1130	1290
Bacteria numbers ($x10^6$/mL)	0.55	0.56	0.34	0.90	0.71
Total chlorophyll (µg/L)	0.22	0.26	0.26	2.80	2.02

Appendix Table 154. Physical, chemical and biological data from Sproat Lake, Stn.3, July 30, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	21.5	21.2	20.8	7.0	5.8
Total dissolved solids (mg/L)			38.0		
Total nitrogen (µg N/L)	90	89	79	86	91
Total dissolved nitrogen (µg N/L)	94	114	112	104	140
Nitrate (µg N/L)	<1	<1	<1	3	27
Total phosphorus (µg P/L)	<1	<1	<1	1	
Particulate phosphorus (µg P/L)	<2	3	<1	2	1
Soluble reactive silicon (µg Si/L)	950	990	1020	1080	1240
Bacteria numbers ($x10^6$/mL)	0.37	0.39	0.38	0.73	0.82
Total chlorophyll (µg/L)	0.32	0.33	0.34	1.93	3.40

Appendix Table 155. Physical, chemical and biological data from Sproat Lake, Stn.3, August 27, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	20.3	20.2	20.1	7.0	5.9
Total dissolved solids (mg/L)			34.0		
Total nitrogen (µg N/L)	130	116	79	109	118
Total dissolved nitrogen (µg N/L)	95	111	134	120	153
Nitrate (µg N/L)	<1	<1	<1	1	36
Total phosphorus (µg P/L)	<1	<1	<1	2	2
Particulate phosphorus (µg P/L)	<0.5	<0.5	<0.5	<1	<1
Soluble reactive silicon (µg Si/L)	770	880	840	930	1180
Bacteria numbers ($x10^6$/mL)	0.10	0.45	0.28	0.41	0.81
Total chlorophyll (µg/L)	0.38	0.39	0.40	3.22	3.22

Appendix Table 156. Physical, chemical and biological data from Sproat Lake, Stn.3, October 1, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	17.2	17.2	17.1	7.7	5.9
Total dissolved solids (mg/L)			35.9		
Total nitrogen (µg N/L)	158	91	143	120	138
Total dissolved nitrogen (µg N/L)	118	117	167	166	147
Nitrate (µg N/L)	1	1	1	<1	23
Total phosphorus (µg P/L)	<1	<1	<1	2	1
Particulate phosphorus (µg P/L)	<1	<1	<1	2	<1
Soluble reactive silicon (µg Si/L)	1040	1060	1100	1130	1420
Bacteria numbers ($x10^6$/mL)	0.48	0.47	0.63	0.76	0.95
Total chlorophyll (µg/L)	0.52	0.52	0.51	1.51	3.31

Appendix Table 157. Physical, chemical and biological data from Sproat Lake, Stn.3, Nov. 5, 1982.

Depth (m)	1	3	5	23	40
Temperature (°C)	10.9	10.8	10.7	8.2	5.8
Total dissolved solids (mg/L)			34.1		
Total nitrogen (µg N/L)	120	135	128	121	126
Total dissolved nitrogen (µg N/L)	82	116	92	88	93
Nitrate (µg N/L)	3	3	3	4	21
Total phosphorus (µg P/L)	2	2	2	1	1
Particulate phosphorus (µg P/L)	1	1	2	1	1
Soluble reactive silicon (µg Si/L)	1090	1230	1050	1310	1390
Bacteria numbers ($x10^6$/mL)	1.06	1.02	0.99	0.92	0.81
Total chlorophyll (µg/L)	2.29	1.12	2.03	1.04	2.21

Appendix Table 158. Physical, chemical and biological data from Woss Lake, March 27, 1982.

Depth (m)	0	1	2	3	5	7.5	10	20	30
Temperature (°C)	6.2	6.2	6.2	6.1	6.1	6.0	6.0	5.9	5.9
Total dissolved solids (mg/L)					18.5				
pH		6.9			6.9				
Total alkalinity (mg/L $CaCO_3$)		7.36			7.49				
Dissolved inorganic carbon (mg C/L)[a]		2.37			2.48				
Dissolved inorganic carbon (mg C/L)[b]	2.60	2.08		2.37	2.61	2.56	2.57		
Total dissolved nitrogen (µg N/L)		177		317	152				246
Nitrate (µg N/L)		38		37	36				40
Total phosphorus (µg P/L)		1		2	1				1
Particulate phosphorus (µg P/L)		<0.5		0.5	0.5				0.5
Soluble reactive silicon (µg Si/L)		1188		1092	1183				1205
Bacteria numbers ($x10^6$/mL)				0.92					0.75
Light bottle glucose turnover time (h)		655		354	1071				
Dark bottle glucose turnover time (h)				>10000	5380				2402
Total chlorophyll (µg/L)		0.42		1.22	0.56				0.30
Total prim. prod. (>0.2 µm)(mg C/m^3/h)	0.79	0.45	0.12	0.34	0.27	0.09	0.02	0.00	
Fract. prim. prod. (0.2-3.0 µm)(mg C/m^3/h)		0.35		0.11	0.19				
Fract. prim. prod. (>3.0 µm)(mg C/m^3/h)		0.10		0.23	0.07				
Fract. prim. prod. (0.2-8.0 µm)(mg C/m^3/h)		0.29		0.19	0.12				
Fract. prim. prod. (3.0-8.0 µm)(mg C/m^3/h)		0.00		0.08	0.00				
Fract. prim. prod. (>8.0 µm)(mg C/m^3/h)		0.17		0.14	0.15				

[a]values determined using the potentiometric method (APHA 1976).
[b]values determined using the gas chromatograph (Stainton et al. 1977).

Appendix Table 159. Physical, chemical and biological data from Woss Lake, April 28, 1982.

Depth (m)	0	1	2	3	5	7.5	10	20	30
Temperature (°C)	7.8	7.8	7.7	7.7	7.6	7.5	7.4	7.0	6.8
Total dissolved solids (mg/L)					15.7				
pH			6.8			6.8			
Total alkalinity (mg/L $CaCO_3$)			8.98			8.98			
Dissolved inorganic carbon (mg C/L)[a]			3.08			3.25			
Dissolved inorganic carbon (mg C/L)[b]	2.17	2.41	2.21	2.21	2.04	2.28	2.52	1.66	
Total dissolved nitrogen (µg N/L)		332		240	260				325
Nitrate (µg N/L)		23		24	23				26
Total phosphorus (µg P/L)		<1		<1	2				<1
Particulate phosphorus (µg P/L)		<0.5		0.5	0.5				<0.5
Soluble reactive silicon (µg Si/L)		1090		1080	1090				1240
Bacteria numbers ($x10^6$/mL)		0.75		0.79	0.51				0.82
Light bottle glucose turnover time (h)		260		200	192				259
Dark bottle glucose turnover time (h)		645		815	204				202
Total chlorophyll (µg/L)		1.04		1.64	1.56				0.78
Total prim. prod. (>0.2 µm)(mg $C/m^3/h$)	0.43	0.27	0.27	0.36	0.32	0.24	0.22	0.01	
Fract. prim. prod. (0.2-3.0 µm)(mg $C/m^3/h$)		0.06		0.17	0.20				
Fract. prim. prod. (>3.0 µm)(mg $C/m^3/h$)		0.21		0.19	0.12				
Fract. prim. prod. (0.2-8.0 µm)(mg $C/m^3/h$)		0.21		0.27	0.23				
Fract. prim. prod. (3.0-8.0 µm)(mg $C/m^3/h$)		0.15		0.09	0.03				
Fract. prim. prod. (>8.0 µm)(mg $C/m^3/h$)		0.07		0.09	0.09				

[a]values determined using the potentiometric method (APHA 1976).
[b]values determined using the gas chromatograph (Stainton et al. 1977).

Appendix Table 160. Physical, chemical and biological data from Woss Lake, May 27, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	10.0	9.9	9.8	7.5
Total dissolved solids (mg/L)			24.8	
Total dissolved nitrogen (µg N/L)	188	190	211	280
Nitrate (µg N/L)	25	25	25	30
Total phosphorus (µg P/L)	1	1	1	<1
Particulate phosphorus (µg P/L)	1	1	1	0.5
Soluble reactive silicon (µg Si/L)	1260	1260	1190	
Bacteria numbers (x10^6/mL)	0.67	0.66	0.67	0.80
Total chlorophyll (µg/L)	0.52	0.62	0.62	0.20

Appendix Table 161. Physical, chemical and biological data from Woss Lake, June 22, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	15.8	15.5	15.2	7.8
Total dissolved solids (mg/L)			16.7	
Total dissolved nitrogen (µg N/L)	130	122	150	154
Nitrate (µg N/L)	16	21	17	42
Total phosphorus (µg P/L)	1	1	1	1
Particulate phosphorus (µg P/L)	<1	<1	<1	<1
Soluble reactive silicon (µg Si/L)	1160	1140	1150	1220
Bacteria numbers ($x10^6$/mL)	0.55	0.54	0.51	0.75
Total chlorophyll (µg/L)	1.14	1.20	1.20	0.28

Appendix Table 162. Physical, chemical and biological data from Woss Lake, July 27, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	18.0	17.6	17.3	7.5
Total dissolved solids (mg/L)			29.3	
Total nitrogen (µg N/L)	87	84	96	84
Total dissolved nitrogen (µg N/L)	94	131	154	141
Nitrate (µg N/L)	5	5	4	34
Total phosphorus (µg P/L)	<1	1	1	1
Particulate phosphorus (µg P/L)	<2	<1	<1	<2
Soluble reactive silicon (µg Si/L)	1110	1110	1100	1240
Bacteria numbers ($x10^6$/mL)	0.65	0.64	0.51	0.72
Total chlorophyll (µg/L)	1.02	0.88	1.01	0.25

Appendix Table 163. Physical, chemical and biological data from Woss Lake, August 24, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	17.9	17.7	17.4	8.1
Total dissolved solids (mg/L)			17.3	
Total nitrogen (µg N/L)	169	160	136	124
Total dissolved nitrogen (µg N/L)	138	101	115	133
Nitrate (µg N/L)	3	3	3	24
Total phosphorus (µg P/L)	<1	1	1	1
Particulate phosphorus (µg P/L)	<0.5	<1	<1	2
Soluble reactive silicon (µg Si/L)	860	840	980	1070
Bacteria numbers ($x10^6$/mL)	0.41	0.64	0.50	0.43
Total chlorophyll (µg/L)	1.46	1.30	2.29	0.45

Appendix Table 164. Physical, chemical and biological data from Woss Lake, Sept. 29, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	15.2	15.2	15.1	8.8
Total dissolved solids (mg/L)			17.0	
Total nitrogen (µg N/L)	129	153	117	105
Total dissolved nitrogen (µg N/L)	174	143	135	122
Nitrate (µg N/L)	4	3	4	24
Total phosphorus (µg P/L)	<1	1	<1	<1
Particulate phosphorus (µg P/L)	<1	<1	<1	<1
Soluble reactive silicon (µg Si/L)	1190	1170	1170	1280
Bacteria numbers (x10^6/mL)	0.67	0.93	0.72	0.68
Total chlorophyll (µg/L)	1.07	1.27	1.43	0.43

Appendix Table 165. Physical, chemical and biological data from Woss Lake, Nov. 2, 1982.

Depth (m)	1	3	5	30	
Temperature (°C)	11.6	11.5	11.5	9.6	
Total dissolved solids (mg/L)			17.2		
Total nitrogen (µg N/L)	103	114	85	111	
Total dissolved nitrogen (µg N/L)	140	138	122	137	
Nitrate (µg N/L)	14	13	13	27	
Total phosphorus (µg P/L)	1	1	1	1	
Particulate phosphorus (µg P/L)	1	1	<1	1	
Soluble reactive silicon (µg Si/L)	1160	900	960	1080	
Bacteria numbers ($x10^6$/mL)	0.70	0.88	0.83	0.81	
Total chlorophyll (µg/L)	1.77	1.38	1.35	0.28	

Appendix Table 166. Physical, chemical and biological data from Yakoun Lake, May 20, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	8.1	7.9	7.7	5.0
Total dissolved solids (mg/L)			27.6	
Total dissolved nitrogen (µg N/L)	231	208	214	256
Nitrate (µg N/L)	34	37	36	30
Total phosphorus (µg P/L)	1	<1	1	1
Particulate phosphorus (µg P/L)	<1	<1		
Soluble reactive silicon (µg Si/L)	960	960	970	970
Bacteria numbers (x10^6/mL)	0.63	0.57	0.92	1.14
Total chlorophyll (µg/L)	1.76	1.58	0.90	0.18

Appendix Table 167. Physical, chemical and biological data from Yakoun Lake, June 15, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	16.0	14.8	13.5	5.9
Total dissolved nitrogen (µg N/L)	227	154	174	182
Nitrate (µg N/L)	7	10	34	36
Total phosphorus (µg P/L)	2	2	5	6
Particulate phosphorus (µg P/L)	<2	<2	<2	<2
Soluble reactive silicon (µg Si/L)	896	886	893	922
Bacteria numbers ($x10^6$/mL)	0.51	0.67	0.65	0.86
Total chlorophyll (µg/L)	2.00	2.60	2.20	0.26

Appendix Table 168. Physical, chemical and biological data from Yakoun Lake, July 14, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	15.8	15.5	15.3	5.8
Total dissolved solids (mg/L)			28.6	
Total nitrogen (µg N/L)	112	113	122	116
Total dissolved nitrogen (µg N/L)	127	93	100	124
Nitrate (µg N/L)	<1	<1	<1	32
Total phosphorus (µg P/L)	5	2	2	<1
Soluble reactive silicon (µg Si/L)	910	910	900	970
Bacteria numbers ($x10^6$/mL)	0.49	0.57	0.80	0.89
Total chlorophyll (µg/L)	1.49	1.33	1.30	0.24

Appendix Table 169. Physical, chemical and biological data from Yakoun Lake, August 18, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	18.0	17.5	17.0	6.1
Total dissolved solids (mg/L)			24.6	
Total nitrogen (µg N/L)	121	116	140	111
Total dissolved nitrogen (µg N/L)	137	150	140	170
Nitrate (µg N/L)	<1	<1	<1	36
Total phosphorus (µg P/L)	<1	1	1	1
Particulate phosphorus (µg P/L)	<1	<1	<1	<1
Soluble reactive silicon (µg Si/L)	690	690	690	740
Bacteria numbers ($x10^6$/mL)	0.31	0.76	0.62	0.76
Total chlorophyll (µg/L)	0.62	0.90	0.80	0.16

Appendix Table 170. Physical, chemical and biological data from Yakoun Lake, Sept. 15, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	18.4	17.7	17.0	6.9
Total nitrogen (µg N/L)	239	406	276	221
Total dissolved nitrogen (µg N/L)	152	229	184	150
Nitrate (µg N/L)	3	3	4	37
Total phosphorus (µg P/L)	<1	1	2	1
Particulate phosphorus (µg P/L)	<2	<2	3	<2
Soluble reactive silicon (µg Si/L)	830	850	820	870
Bacteria numbers ($x10^6$/mL)	0.59	0.74	0.80	0.82
Total chlorophyll (µg/L)	1.68	1.92	2.08	0.11

Appendix Table 171. Physical, chemical and biological data from Yakoun Lake, October 15, 1982.

Depth (m)	1	3	5	30
Temperature (°C)	13.3	13.2	13.1	6.5
Total dissolved solids (mg/L)			29.3	
Total nitrogen (µg N/L)	125	121	135	148
Total dissolved nitrogen (µg N/L)	159	157	186	159
Nitrate (µg N/L)	3	3	3	41
Total phosphorus (µg P/L)	1	1	1	1
Particulate phosphorus (µg P/L)	1	1	<1	1
Soluble reactive silicon (µg Si/L)	930	920	920	950
Bacteria numbers ($x10^6$/mL)	0.97	0.80	1.00	0.92
Total chlorophyll (µg/L)	3.59	3.31	2.21	0.16